



Class B 131

Book S2

A

CRITICAL EXPOSITION
OF
MENTAL PHILOSOPHY ;

OR THE
FIRST PRINCIPLES OF METAPHYSICS:
EMBRACING
A CRITICAL ANALYSIS OF IDEAS, THE ELEMENTS
OF REASONING, AND THE PHILOSOPHY
OF THE FEELINGS AND WILL.

ADAPTED TO
ACADEMIC AND POPULAR USE.

BY LEICESTER A. SAWYER, A. M.

"Wisdom is the principal thing, therefore get wisdom; and with all thy getting, get understanding." Solomon.

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ENTERED,

ACCORDING TO THE ACT OF CONGRESS, IN THE YEAR MDCCXXXIX, BY
LEICESTER A. SAWYER, A. M.

IN THE OFFICE OF THE CLERK OF THE DISTRICT COURT OF
CONNECTICUT DISTRICT.

INTRODUCTION.

MENTAL Philosophy is a subject of intense and general interest. Most branches of it have been ably discussed by successive writers of ancient and modern times. As a science, however, it may be considered as of modern date. Locke, Reid, Stewart, Brown, Kant, Cousin, and many others, have contributed to develop and establish its principles, and to diffuse a knowledge of them through the civilized world. Minds are as legitimate objects of knowledge, as material objects. The doctrines of mental philosophy, are not mere matters of conjecture and opinion, any more than those of mathematics and physics. The amount of knowledge attained and attainable, respecting minds, is much greater than many suppose.

Much knowledge, however, that is actually attained by some, is far less extensively diffused than its importance demands ; and other and higher truths belonging to this department of science, which are fully within the grasp of human reason, are yet unattained.

In the present work, considerable improvements have been attempted, in the theory of sensations, ideas, affections, and of the will ; and in the general division and arrangement of mental phenomena. In each of the generic departments of mental philosophy, particularly in that of ideas, it is believed that the doctrines of the following pages are in advance of the existing state of mental philosophy, as it appears in any other work. Whether this is really the case or not, and in what degree it is the case, if it is so at all, is submitted to the judgment of candid and competent critics, and to the still higher judgment of the public at large, by which that of the most enlightened individual critics is sometimes justly reversed.

This work is not put forth under any impression that it is perfect. Imperfection is common to all human productions ; especially so to those which embrace the discussion of the

principles and operations of the human mind. Locke is not perfect; Reid is not perfect; Stewart is not perfect. The same will be true of all who undertake to prosecute and complete the investigations commenced by those illustrious men. That which is not perfect, however, may be better than nothing, and one imperfect thing better than others.

The nomenclature of the present work is conformed as strictly as possible;

1. To established popular usage;
2. To that of approved writers on mental philosophy.

No unnecessary innovation has been attempted in this respect. The only one which has been found necessary, is that of extending or restricting the meaning of several words, and using them in significations more or less general than is common. One instance of this occurs in respect to the word ideas, which is used to denote a particular class of mental exercises, exclusive of sensations and emotions. By most writers on mental philosophy, ideas are confounded with sensations, and sensations with ideas. These two classes of phenomena, however, are entirely distinct, and ought to be clearly distinguished from each other. In order to distinguish them, it is necessary to restrict the improper extension of the terms by which they are expressed. Such restrictions are fully authorized by the practice of the best writers, in all departments of science, and are required by the necessities of the case. They constitute a large and important class of the most valuable improvements in language, and are constantly and necessarily multiplying, in proportion as science advances.

The extension of the common signification of the word minds, and the application of the titles animal and vegetable minds, to denote the principles of animal and vegetable life, and the description of them as of the same genus with human minds, but of lower orders, are legitimate results of the principle of classification, by which we refer the subjects of all similar phenomena to the same ultimate genera, and distribute them into subordinate genera, according to their specific differences.

New-Haven, Conn., April, 1839.

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MENTAL PHILOSOPHY.

PART FIRST.

THE CLASSIFICATION OF MENTAL PHENOMENA AND THE PHILOSOPHY OF SENSATIONS.

CHAPTER I.

THE CLASSIFICATION OF MENTAL PHENOMENA.

SECTION I.

THE GENERIC PROPERTIES AND ORDERS OF PHENOMENA.

PHENOMENON is a word of extensive use in natural and mental science. It is applied to designate whatever is the direct object of observation, in the material and spiritual world ; and refers to events, operations, and experiences, considered irrespective of their agents or subjective causes. It is derived from the Greek verb *Φαίνω* (phaino,) to produce, to show, to bring to view, to exhibit ; and denotes whatever is produced, shown, or exhibited.

Tides, eclipses, the successions of day and night, the fall and weight of bodies, their composition and de-composition, &c., are phenomena. The same is true of all the objects of consciousness ; such as sensations, ideas, emotions, affections, desires, acts of will, &c.

Phenomena are the primary objects of knowledge. With these, human knowledge uniformly commences, and to them a large and important portion of it relates. What we first know, are the objects of consciousness, commencing with sensations ; from them, and by means of them, we observe

the phenomena of the material world, attending first to those of the solidity, forms, positions, motions, and structures of material objects, which are at hand ; and subsequently extending our observations to remote parts of the world, of the solar system, and of the visible universe.

What is exhibited to our eyes, we see ; what is addressed to our ears, we hear ; what acts upon our other senses, we feel. From our sensations we judge. One judgment leads to another, and others to others still, multiplying without end.

Phenomena are of two generic orders :

1. The phenomena of mind ;
2. The phenomena of matter.

This division of phenomena into two different generic orders, is made in conformity with the principle, that all phenomena must have subjective causes ; and that in every appearance, or exhibition, or object of consciousness, there must be something which appears or which is exhibited ; or which is the subjective cause or agent of those states of sensation, ideas, emotions, &c., that are the objects of consciousness.

Assuming the principle, that in all appearances and operations, there is something different from the appearance and operation, which appears and operates ; we are led, irresistibly, to the division of phenomena into the generic orders above specified. In multitudes of cases, we find that which is the subjective cause of the phenomena of matter, incapable of those attributed to mind ; and that which is the subjective cause of the phenomena of mind, incapable of those of matter.

Hence we infer, that the subjective causes in these cases are different ; that is, possess peculiar properties ; and we distribute their respective phenomena into different corresponding orders.

This classification and distribution of phenomena is made to some extent, by all men, not excepting those of the most limited attainments. It is impossible not to make it ; or so far to revolutionize the opinions and judgments of men in reference to this subject, as altogether to supersede this mode of classification.

The assumption of two classes of subjective causes is necessary, to account for the two orders of phenomena which are distinguished from each other, as those of matter and mind. They are sufficient for this purpose. All subjective causes of phenomena, must be either spiritual or material. There is no room for an intermediate order of agents. Spiritual and material agents may be of different orders and varieties, but there can be nothing besides, which is incapable of being reduced to one or other of these generic orders. All agents which are not material, are spiritual; and all which are not spiritual, are material. Hence we infer, that all phenomena belong either to material or spiritual agents, and that they consist of two, and only two generic orders.

Having adopted the principle of classification above specified, our next business is to classify all known phenomena accordingly, by referring them to one or the other of these two orders. In some cases, this is easily done; in others, the accomplishment of it is difficult; and in some, a few, perhaps impossible.

The most obvious phenomena of mind, are sensations, ideas, emotions, affections, and other exercises which are the immediate objects of consciousness. All men agree in the judgment, that these phenomena do not belong to material objects, such as earths, metals, salts, alkalis, acids, &c.

The most obvious phenomena of matter are resistance, attraction, motion, &c., of many different modes and degrees. All men agree in the judgment that these phenomena, as they occur incessantly around us, do not belong to minds or spiritual objects.

The discrimination of these two orders of phenomena, depends on their relation to subjective causes only, not on any other properties or relations. All those phenomena of every possible variety, of which the mind is the subject, are phenomena of the mind; and all of every possible variety of which matter is the subject, are the phenomena of matter.

SECTION II.

THE GENERIC PROPERTIES AND ORDERS OF MENTAL PHENOMENA.

Mental phenomena are distinguished from others, solely by their relation to minds as the subjects of them. This relation is sometimes indicated directly by consciousness, as in the case of sensations, ideas, &c. ; and sometimes by evidences of other kinds, which are less direct, but in many cases not less, or if any, but little less, decisive of the fact in question.

Mental phenomena are accordingly divided into two generic orders :

1. Those which are objects of consciousness ;
2. Those which are not objects of consciousness.

Of the former class are sensations, ideas, &c. ; and of the latter, the phenomena of organic and animal life ; such as respiration, sensation, &c.

These two orders of phenomena agree in resulting from the immediate agency of minds or beings, which are not material. Mere matter is inadequate, and equally inadequate to the production of either of them. Considered with respect to their origin, therefore, they are of the same order.

They differ, however, by the element of consciousness being the uniform accompaniment of some and not of others. We are always conscious of sensations, ideas, &c. ; never of the processes of organic life. Considered with respect to this accompaniment, therefore, the phenomena of the mind are of two orders, those which are the objects of consciousness, and those which are not.

The essential and generic quality of these phenomena, is, that they originate in the mind or in spiritual agency, and the specific difference of the two classes in this order, that of attending consciousness in the case of the first, which are thereby distinguished from others of the same spiritual origin. Those mental phenomena which are objects of consciousness, are the objects of one department of mental science ; those which are not objects of consciousness, are the objects of another. The theory and

exposition of the former, is generally denominated mental philosophy; that of the latter, human, animal, and vegetable physiology.

The idea that all mental phenomena are necessarily objects of consciousness; or, in other words, that the mind cannot act without being conscious of its action, is entirely conjectural. It is destitute of any rational support from experience or observation, and irreconcilable with certain facts and legitimate inferences from known phenomena. It is, therefore, manifestly and entirely erroneous.

Other phenomena bear evident marks of belonging to the same agents, and agents of the same spiritual or incorporeal nature, as those which are the objects of consciousness. The phenomena of animal and vegetable life are of this description, comprehending the animation, growth, vital and voluntary motions of animal and vegetable bodies, and their production of successors.

The state of a living animal or vegetable body, is a state of animation. In the case of man and most animals, the circulating and respiratory systems are in constant operation. The blood is constantly circulating, and the lungs constantly operating to fit it for useful circulation. Other processes of absorption, secretion, perspiration, and excretion, are also constantly going on, and co-operating with the circulating and respiratory systems. Every part of a living body is the theater of incessant action. The instruments of that action are material organs. But what is the agent? By what are those organs kept in exercise, which knows no remission? That agent must be either the mind in the case of animals and of man, or else some other being not material. It is generally supposed to be some other being not material, denominated the principle of animal life. But what do we know of this principle? Simply, that it operates incessantly in the various processes of animal life. How do we know, then, that it is not the soul or mind?

The soul or mind is a being not material. The circulation of the blood, respiration, absorption, secretion, perspiration, excretion, &c., indicate the presence and agency of a being not material. One such being is

present, to wit; the soul. Why then shall we not conclude, that the phenomena above referred to, belong to the soul, which we know from other evidences to be present, instead of supposing the existence of a separate principle of animal life, merely to account for them? There is evidently no sufficient reason for the hypothesis of a principle of animal and human life, separate from the soul or mind which is the subject of consciousness, and of various conscious exercises.

The doctrine, that the phenomena of animal life belong to the same spiritual agent as those of consciousness, is further supported by the following considerations.

1. The nerves which serve as the organs of the principle of animal and organic life, and those which serve as the organs of the mind in sensation and voluntary action, constitute one nervous system, all the parts of which are in immediate communion with each other. We infer from this, the identity of the agent which operates by means both of voluntary and involuntary, sentient and motive nerves; or, in other words, of the principle of animal and organic life, and the mind which is the subject of conscious exercises.

2. The destruction of organic life is attended with the cessation of all the phenomena of consciousness, in human and animal bodies. When respiration, the circulation of the blood, and the other processes of organic life cease, all signs of consciousness cease. The body ceases to be an instrument of sensation and theater for the other conscious exercises of the mind, whenever it ceases to be an instrument of the organic operations which constitute a state of animal and organic life.

If organic life could continue indefinitely without any capacity of sensation and volition either manifest or latent, or if sensation and volition could manifest themselves in the absence of any signs of organic life, we might conclude that the principles of organic life and of mental phenomena were different. The facts, however, are the opposite of what is here supposed. The principle of mental phenomena may be latent in sleep, syncope, and various other states of the body. At the same time, however, there is always a partial suspension of the operations of

organic life ; and the principle of thought becomes latent in consequence of obstructions thus interposed, and contemporaneously with the partial concealment of the principle of organic vital actions.

In no case is the mind supposed to be disengaged from the body, where any of the phenomena of organic life appear, clearly proving that in the common apprehensions of all mankind, the slightest indication of animal or organic life, is supposed to be indicative of the presence and connection of the mind with its material tenement.

In our waking hours, the presence of the mind and its connection with the body, are indicated by sensations, ideas, emotions, and other conscious exercises ; in sleep, by respiration, circulation of the blood, and the various operations of organic life ; so in syncope, lethargy, and every species of disease.

The vital processes of vegetable, are similar to those of animal life, and equally indicative of the agency of vegetable minds or principles of vegetable life which are not material.

The animation or vital action, growth, and production of vegetables, are analogous to corresponding phenomena in the animal kingdom.

The phenomena of animal, organic, and vegetable life, belong chiefly to animal and vegetable physiology ; but are equally, with those of consciousness, developments of mind, or of substances not material ; and as such, are legitimate objects of mental science, and entitled to a generic classification with other mental phenomena.

SECTION III.

THE GENERIC PROPERTIES AND ORDERS OF MENTAL PHENOMENA WHICH ARE THE OBJECTS OF CONSCIOUSNESS.

The phenomena of the mind, which are the objects of consciousness, are numerous and diversified. They consist of the following orders :

1. Sensations ;
2. Ideas ;
3. Emotions ;
4. Affections :
5. Desires ;
6. Acts of will.

All those mental phenomena which are the objects of consciousness, are of one or other of these classes, and none of more than one. Pain, for example, is a sensation, not an idea, emotion, or act of will ; the idea, that five and five equal ten, is an idea, not a sensation, emotion, or desire ; an emotion of beauty, sublimity, or the ludicrous, is not a sensation or desire. So of phenomena of all the other classes.

The different generic orders of mental exercises, which are objects of consciousness, are all continuous, and partly successive and partly cotemporaneous. They are also characterized by particular orders, both of cotemporaneousness and succession. Sensations give rise to ideas, and continue with them ; ideas to emotions, affections, and desires, and continue with them ; and so on.

The same is true of different varieties of the same order of mental phenomena. Different sensations, ideas, emotions, and other mental exercises of the same order, exist to a greater or less extent, in the same complex state of mind, and require to be separated by a careful analysis.

The continuity of mental exercises, which are the objects of consciousness, is one of their universal properties, and one which they possess in common with all phenomena. Their relations of cotemporaneousness and succession are consequences of this.

The generic orders of mental phenomena above specified, admit of being subdivided into various subordinate classes, and the subordinate classes into others subordinate to them, and so on, indefinitely.

Their highest generic distinction is phenomena ; next, mental phenomena ; next, phenomena which are objects of consciousness ; next, sensations, ideas, emotions, affections, desires, and acts of will ; then particular species of

sensations, ideas, emotions, affections, desires, and acts of will, &c.

Considered simply as phenomena, mental exercises stand in the same comprehensive genus with the phenomena of matter; considered as mental phenomena, they are discriminated from those of matter; considered as sensations, ideas, &c., they are discriminated from other co-ordinate classes of mental phenomena; considered as different species of sensations, ideas, emotions, &c., they are discriminated from other co-ordinate species of the same generic orders.

Sensations occupy the first place among the generic orders of mental phenomena, in the order of succession. They are the first phenomena that appear in infancy; and continue during every successive period of life, to stand at the head of numerous independent trains of successive mental phenomena; consisting of the different classes above specified.

Our first trains of thought originate in sensations. The same is true of numerous successive trains of ideas, belonging to the experience of every day, and almost every hour. Sensations are first, then ideas of sensible objects, then emotions excited by those ideas, then affections, desires, purposes, and volitions.

The theory of sensation is the basis or fundamental section of mental philosophy. Without a perfect and accurate knowledge of its leading principles, the successful study of other classes of mental phenomena is impossible. After having ascertained the true character and end of sensations, we pass easily to the investigation of ideas, many of which are not intelligible without these preparatory acquisitions. This is especially the case with that numerous class of ideas denominated perceptions; or perceptions of material objects.

It is supposed by many, that sensations are uninteresting and unimportant subjects of philosophical investigation, and that they may be slightly and superficially examined, or passed over entirely, without subjecting us to serious embarrassment in the investigation of other mental phenomena. This, however, is not the case. An accurate

knowledge of the nature and office of sensations, is highly important and interesting, as a primary department of mental science, and as introductory to that of ideas, which is next in order. Many, and pernicious errors, have prevailed and still prevail, in respect to ideas, from not distinguishing properly between them and sensations, and from not ascertaining and observing the peculiar characteristics of each. To understand ideas, therefore, we must understand sensations.

There is a similar relation between all the other orders of mental phenomena, and those which occupy the next previous places in the natural order of succession. A knowledge of ideas is necessary to that of emotions; a knowledge of emotions to that of affections; a knowledge of emotions and affections to that of desires; and a knowledge of emotions, affections, and desires, to that of purposes and volitions.

Emotions are subsequent to ideas in the order of succession, and, therefore, ought to be studied subsequently. Affections and desires are subsequent to emotions, and, therefore, ought to be studied subsequently to them; so of purposes and volitions.

A neglect to observe the order of succession in the occurrence of mental phenomena, and to pursue a corresponding order in the investigation of them, has led to much confusion of ideas, and to many serious errors, in every department of mental science.

CHAPTER II.

THE PHILOSOPHY OF SENSATIONS.

SECTION I.

THE GENERIC PROPERTIES AND ORDERS OF SENSATIONS.

Mental phenomena, which are not the effects of any previous exercise of mind, but which result immediately from a peculiar condition of the body, or of some particular parts of it, are denominated sensations.

Those feelings which excite desires for food and drink; feelings of weariness and fatigue, of heat and cold, of pain; together with the exercises of the five external senses, are of this kind.

Sensations are exercised by means of bodily organs, and may be distributed into several different classes, according to the different organizations on which they depend, and their corresponding differences of quality. The following are the principal divisions of this order of phenomena :

1. Sensations which are the basis and exciting causes of the bodily appetites ;
2. Sensations of weariness and fatigue ;
3. Sensations of heat and cold ;
4. Sensations of pain ;
5. Sensations of touch ;
6. Sensations of sight ;
7. Sensations of hearing ;
8. Sensations of taste ;
9. Sensations of smell.

The sensations obtained from the exercise of different organs, are of different qualities. Thus, those of sight differ in quality from those of hearing, touch, &c.

The quality of sensations is an object of consciousness, and is incapable of being accurately defined by words. Words are applied to denote this class of phenomena, embracing the idea of their quality. But these words can

be interpreted only by their being referred to phenomena of the same class, as they have occurred in the experience of the interpreter. To understand colors, we must exercise the sensations of sight; and to understand sounds, we must exercise those of hearing. The same is true of the other classes of sensations. The most elaborate descriptions are utterly incapable of giving the least idea of the quality of any class of sensations, to one who has never exercised them.

The description of sensations, by referring them to their organs, and the occasions on which they occur, is easily understood by those who have these organs, and the opportunity and ability to exercise them. This method of describing them, is that usually adopted, and is the only one which is practicable.

The different orders of sensations constitute one beautiful and harmonious system of phenomena, which may be easily distinguished from all other mental exercises, and which sustain important relations to all others.

The occurrence of sensations, by means of bodily organs, and in consequence of certain states of those organs, furnishes a convenient method of distinguishing them from other classes of mental phenomena, and from each other. But their fundamental properties, as objects of consciousness, considered without respect to the manner or means of their being excited, are quality and quantity; both of which are objects of consciousness only.

1. The quality of sensations.

The quality of sensations, is that by which those of one class differ from those of another, and varieties of one class differ from other varieties of the same; also by which sensations of every class and variety, differ from other classes of mental phenomena, which are the objects of consciousness, considered without respect to the means and manner of their being excited.

Considered with respect to quality, sensations are either pleasurable, painful or displeasurable, or indifferent. Those which arise from the legitimate gratification of the appetites, are pleasurable; those which serve as the primary exciting causes of the appetites, are painful or dis-

pleasurable; those which arise from a derangement or injury of the bodily organs, are painful; those of touch, sight, hearing, taste, and smell, are either pleasurable, painful, or indifferent.

The quality of the sensations which we are capable of deriving from different material objects, is the basis of our estimates respecting those objects, as pleasing, displeasing, and indifferent. An object of pleasurable sensations, is pleasing and agreeable; one of displeasurable sensations, is displeasing and disagreeable. The sensible qualities of objects, are all relative to the capacities of sensation, according to which they are estimated. That which produces sensations of sweetness, is sweet, and those of bitterness, bitter. If two persons were so constituted, that the same object which was sweet to one, was bitter to the other, and the same object which was black to one, was white to the other, and the same state of the organs which was a cause of pain to the one, was a cause of opposite pleasurable sensations to the other, &c., the sensible qualities of objects to those persons, would be of a directly opposite character. The reason of this would be, not any difference in the objects, considered absolutely, but a difference in the capacities of sensation in the persons concerned, by which objects are made relatively different, and of relatively opposite qualities.

Every degree of diversity in the capacities of sensation, considered with respect to the quality of the sensations obtained from given objects, leads to corresponding diversities of judgment, respecting the qualities of those objects.

Universal agreement respecting the sensible qualities of objects, depends on a corresponding agreement in the capacity of experiencing from them, sensations of given qualities.

2. The quantity of sensations.

The quantity of sensations denotes their relation to others of the same class and variety, considered as more or less, or capable of being estimated in common parts. The two elements of the quantity of sensations, are intensity and duration.

Sensations of every class and variety, may be of greater or less perceptible degrees of intensity, and may continue during longer or shorter periods of time.

The duration of sensations is capable, in many cases, of being easily and accurately estimated. This is true of the sensations connected with the appetites, heat, and cold, and pain, and the sensations of touch, sight, hearing, taste, and smell.

Sensations usually commence in immediate succession to certain states of their respective organs, and continue with such remissions as occur from other sensations, ideas, emotions, affections, and actions, till those organic states on which they depend, are superseded by others not adapted to excite them.

The occurrence of particular classes of sensations is limited to the periods during which the organic states adapted to produce them, continue. Particular sensations of those classes may commence and terminate during any part of the periods above specified, but cannot precede or follow them.

Sensations of the same class and of different classes, may be of different degrees of intensity. Thus the sensations connected with the appetites, may be estimated as of one, two, or many degrees of intensity. So of weariness and fatigue, heat and cold, and pain; and of the sensations of touch, sight, hearing, taste, and smell. The intensity of touch, all other things being equal, varies with the degree of resistance; that of sight, with the number of rays of light, of given kinds, which emanate from given surfaces, so as to fall upon the eye; that of hearing, with the extent of the vibratory motions, by which it is produced; and those of taste and smell, with the number and strength of sapid and odoriferous particles, which are simultaneously the objects of these sensations.

The objects of sensation being the same, the intensity of sensations in the experience of particular individuals, varies according to the condition of the organs of sense, and the cotemporaneous state of the other mental faculties.

Those whose organs are most susceptible, other things being equal, experience sensations from given objects, of

proportionably increased intensity; and those whose organs are least susceptible, in similar circumstances, experience sensations of proportionably diminished intensity.

Those also who are least engaged in other cotemporaneous mental exercises, whether sensations, ideas, or emotions, &c., other things being equal, experience from given sensible objects, sensations of the greatest intensity; and those who are most engaged in other cotemporaneous mental exercises, experience sensations of the least intensity.

The capacities of sensation are capable of different degrees of susceptibility. Some persons are much more susceptible of the different classes of sensations generally, or of one or more particular classes of them, than others; and the same person possesses different degrees of susceptibility, in different periods of life, and in different states of sickness and health.

The organs of sensation are liable to injury, from the direct action of physical agents, impairing or destroying their delicate structures; and the mind may increase or diminish its capacity of using them to advantage, by a judicious and appropriate, or injudicious and inappropriate use of them.

The state of feebleness and ignorance in which we commence our conscious existence, does not require the highest exercises of sensation, or the exercise of some of those classes of sensations, which are characteristic of mature age, in any degree. The capacities and endowments of infants, in respect to this class of the human faculties, are proportionable to their wants. They possess all the senses which they need during their infantile state, and with those degrees of susceptibility which are best adapted to that state. As they advance in age and information, their necessities increase and multiply, and they experience a corresponding increase and multiplication of sensations, and improvement of their organization for this purpose.

SECTION II.

SENSATIONS WHICH ARE THE BASIS AND EXCITING CAUSES OF THE BODILY APPETITES.

The principal of the bodily appetites, are those which have respect to food and drink as their objects, and which are denominated hunger and thirst. These appetites have their origin in peculiar classes of unpleasant sensations, which serve as their basis, and by which they are excited.

The appetite of hunger originates in a class of sensations, which may be denominated sensations of hunger; that of thirst, in others which may be denominated sensations of thirst. In designating these sensations by the same names as their corresponding desires or appetites, we must be careful not to confound, in our conceptions of them, these two classes of phenomena. The sensation of hunger is not the appetite or desire of food, or any part of it; nor the sensation of thirst the desire of drink. They are only the immediate exciting causes of these desires, and are as different from them, as the sensation of pleasing sounds is different from the desire of their continuance or repetition.

The sensations connected with the appetites, considered with respect to quality, are of two kinds, pleasurable and displeasurable. Those which arise from the attainment of the objects of the appetites, such as food and drink, are pleasurable, and those which precede the attainment of those objects, displeasurable. The displeasurable sensations connected with the appetites, are the chief, but not the sole exciting causes of this class of desires. They are reinforced by the pleasures of gratification, which consist in peculiar pleasurable sensations. The appetites, therefore, depend on two classes of sensations. They originate in existing displeasurable sensations, and are heightened and increased by the prospect, not only of relief from them, but of the attainment of opposite pleasurable sensations. This is the case with the appetite for food, and equally so, with all the bodily appetites.

The sensations connected with the appetites, depend upon the existence of appropriate organs, as really as those of sight and hearing. Without organs for the exercise of these sensations, we are incapable of attaining them. The organs of the appetites, are organs of corresponding sensations, to which they sustain the same relations, which the eye does to sensations of sight, and the ear to those of sound. The office of organs in sensation, is merely instrumental. They are not, in any case, the ultimate subjective cause of these phenomena.

A perfect organization and a healthy condition of the organs, is necessary to the attainment of those sensations which are best suited to the purposes which these phenomena are adapted to subserve. This is obviously the case with the organs of sight and hearing. It is equally so with those of the sensations connected with the appetites. If the eye or ear are imperfect in their organization, or essentially diseased, they become incapable of serving as the organs of sight and sound, or else perform this office in a manner less adapted to the purposes of these classes of sensations, than otherwise. Instances of this are frequent, from injuries and diseases of the eyes and ears.

The same is true of the organs of those sensations which are the basis of the appetites. If they become injured or diseased in their structure, the capacity of experiencing their appropriate sensations is proportionably impaired. When the injury is carried to a certain extent, that capacity is destroyed entirely.

The general modifications of the diseases of these organs are :

1. Those which are characterized by an increased susceptibility of their appropriate sensations,
2. Those which are characterized by a diminished susceptibility of them,
3. Those which are characterized by sensations of a morbid quality.

These diseases often arise in consequence of others which have their seat in different parts of the body; and are often excited by an improper and intemperate use of

their respective organs. They require the application of medical and moral remedies, according as their causes are physical, or moral, or both. Either of these classes of remedies will often prove ineffectual without the other, where both would be completely successful.

The sensations connected with the same class of appetites, differ chiefly in degree. Thus the sensations of hunger and thirst may be exercised in a slight degree, by abstinence for a short time, and are susceptible of increase by continued abstinence, till they attain the highest degree possible. Some are capable of experiencing them in higher degrees than others. The same persons may experience them in different degrees from abstinence for similar periods, according to the condition of their organs and other circumstances, tending to increase or diminish the intensity of this class of phenomena; such as the contemporaneous exercise of other classes of sensations in different degrees of intensity, and mental exercises of other generic orders.

The ultimate purpose of the sensations connected with the appetites, is evidently the voluntary preservation of life, and the continuance and multiplication of the different orders of voluntary beings. They serve as the exciting causes of desires and actions, which are necessary to the attainment of these ends, and are an essential part of the nature of all voluntary beings. Man is not alone in the exercise of them. All the other tribes of voluntary beings, which are subject to his dominion, or divide with him the empire of the world, are capable of similar exercises.

These internal sensations are less subject to the dominion of the will, than those of the external senses of touch, sight, hearing, &c. This is particularly the case with the displeasurable ones, which precede indulgence. We are able, generally, to feel tangible objects by touch, or to refrain from doing so. The same is true of sight, hearing, and the other external senses. We have full power to exercise them or not, as we judge best, in particular circumstances. But in many cases, to avoid experiencing, in any degree, the sensations connected with the appetites, is

impossible. While the organs continue in a healthy state, the famishing, for instance, cannot but experience, in some degrees, and during some intervals, the sensations appropriate to such a condition.

No class of sensations are, however, for any considerable time incessant. This is equally true of the sensations which are connected with the appetites, and of all others. They succeed each other with longer or shorter remissions, according to circumstances, which are, in some degree, and often in a great degree, subject to the will. The sensations of the hungry and thirsty are often suspended, even in cases where they are most intense; so of all other sensations connected with the appetites. The exercise of them may be superseded by those of other classes, and by other different orders of mental exercises, such as ideas and affections.

The temperate exercise of the sensations connected with the appetites, and the simultaneous development and exercise of the other mental faculties, tend to keep them all in due proportion to each other. When this proportion is not maintained, the greatest irregularities and mischiefs ensue. In a healthy and well regulated state of the human faculties, the capacities of experiencing those sensations connected with the appetites, are exercised in subservience to the ends for which they are given, and in conformity with the laws of God. Among the animal tribes, the temperate exercise of them is generally secured by the divinely established laws of their being and conditions.

To mankind are delegated greater voluntary powers than to the lower tribes of voluntary beings. All the human faculties are capable of uses, and liable to abuses of which those of other creatures are not capable.

The laws by which we ought to be governed in the voluntary exercise of the sensations connected with the appetites, are :

1. To exercise them for the attainment of their legitimate ends, and for no other purpose. Thus, we ought to eat and drink to promote our health and strength, and to

continue our lives, not merely to attain the pleasures of this species of gratification.

2. To exercise them by means of lawful objects, and by means of no others. Thus, we ought to eat and drink only of what belongs to us. Our liberty of choice does not extend to the possessions of others.

3. To exercise them in preference to other faculties, and by one class of objects in preference to others, only when such exercises will prove the greatest good we can secure.

The observance of either of these rules, requires knowledge and discrimination. This is especially the case with that of the last. To exercise the capacities of sensation connected with the appetites, only in pursuance of the greatest attainable good ; and to do this habitually, in every successive period, and amid all the varying circumstances of life, without a single instance or degree of error, is the constant and laborious endeavor of the truly wise and good. The full accomplishment of this endeavor, exceeds the abilities of any mere man. An approximation towards it, however, is within the power of all ; and it is equally the interest and duty of all to pursue this approximation to the greatest possible extent.

SECTION III.

WEARINESS AND FATIGUE, HEAT AND COLD, AND PAIN.

1. Weariness and fatigue.

Weariness and fatigue are sensations which arise from inaction and labor. A continued state of inaction produces weariness, and continued labor fatigue. The constant attendants and immediate effects of these sensations, are corresponding desires. Weariness is attended with a desire of action, and fatigue with a desire of rest. These desires arise from the displeasurable nature of their exciting sensations, and are directed primarily to the attainment of relief from the same.

Sensations of weariness and fatigue are common to all parts of the body. This is particularly the case with those of fatigue. Fatigue may be experienced in the hands, arms, feet, legs, body, eyes, and ears. We may also be fatigued with mental exertions, which do not call any of the external organs of the body into exercise ; particularly with those of reason and imagination. All kinds of laborious effort are made laborious by the fatigue which they excite. This is the case with all kinds of mechanical labor, reading, speaking, observing objects of sight, such as paintings, engravings, natural scenery, natural curiosities, &c. ; and with silent investigation and study of every kind, including those of the poet and the novelist, equally with the severer studies of the mathematician and philosopher.

Those who are most accustomed to labor, are most affected with weariness, in case of continued inaction, and those who are most accustomed to inaction, are most affected with fatigue in the case of continued exertion. Habitual activity, prosecuted to as great a degree as is consistent with health, diminishes our susceptibility of fatigue ; and continual inaction contributes, in the same degree, and on the same principles, to diminish our susceptibility of weariness.

The design of weariness and fatigue is to promote, in connection with other principles of action, a reasonable exercise of our voluntary powers. Fatigue excites desires of rest, and weariness of exertion. Both are useful and often invaluable stimulants and monitors. They serve not only as exciting causes of corresponding desires, but as principles of important judgments, respecting the extent to which we can pursue our labors, or continue our inaction with safety. Certain degrees of weariness indicate, not only that we have rested sufficiently, but that farther inaction will be injurious ; and certain degrees of fatigue indicate, with equal clearness, not only that we have labored sufficiently to promote the healthy condition of our bodily organs, but that the farther continuance of our labors without remission will be injurious, and perhaps fatal.

The utility of this class of sensations as principles of judgment, respecting the labor and rest which may be re-

quisite for our physical well being, is heightened by their cotemporaneous influence in exciting desires for the same. In such cases, the physical good to be obtained by labor or rest, is one basis of desire and one ground of volition, and relief from the displeasurable sensations by which that good is indicated, another. When the former would be insufficient of itself to sway the will, it often prevails through the additional weight of the latter. Persons may resort to labor or exercise from weariness, and may cease from labor through fatigue, when other indications of their need of labor and rest, which are, in no degree, or in any less degree displeasurable, would be insufficient to secure these results.

Fatigue and weariness, therefore, are not in themselves evils. The capacity of experiencing them is an important and valuable endowment given us for our good, and ought to be appreciated and improved as such.

2. Sensations of heat and cold.

Feelings of heat and cold are sensations which arise from particular temperatures of the body, or of some parts of it, and of the objects which come in contact with the parts thus affected. The frequent occurrence of these sensations, in connection with those of touch, and by means of the same organs and objects, has led many to consider them as belonging to that class of sensations. The inaccuracy of this classification cannot fail to strike any one who attends to his own experience on the subject.

Touch and taste are not more dissimilar than touch and the sensations of heat and cold. The two former may be exercised simultaneously in the mouth, in reference to the same objects, but are not, on that account, of the same class; and the two latter may be exercised simultaneously on the surface of the body generally, in reference to the same objects, but do not, on that account, any more than the others, cease to be of different orders. Touch refers to objects as resisting, and the sensations of heat and cold, to the same, considered as of higher or lower temperatures. Besides, sensations of heat and cold are often exercised separately from those of touch, in a particular limb, or throughout the body generally, and in the interior of the same, as well as at their surfaces. The practical

distinction between sensations of heat and cold, and those of touch, is universal and necessary. They are never confounded, except in the loose and inaccurate theories and generalizations of philosophers.

Caloric, the material cause of heat, is one of the most subtle, universal, and powerful agents of the material world. It enters into the substance of all terrestrial objects, and is more or less concerned in all their changes and operations. The bodies of organized beings, both animal and vegetable, are adapted to particular temperatures. The degrees of temperature which can be endured by animal bodies, without injury, are comprehended within narrower limits than those which can be endured by vegetables.

Certain degrees of heat and cold effect the destruction of vegetables. Less degrees of either, are injurious and fatal to animals. All animals, however, have some power of regulating their temperatures, so as to withstand for a time, and in many instances permanently, degrees both of heat and cold, which would prove injurious or fatal to them, if they had no such regulating power. This power is possessed in the highest degree by man. Clothing, dwellings, and all the apparatus of fire-places, furnaces, and stoves, together with exercise, and rest, are subordinated by man to the regulation of his temperatures, and are designed in most cases, effectually to guard him from injurious and fatal extremes of heat and cold.

Sensations of heat and cold, are capable of different degrees, from those which are so slight as to be perceived and discriminated with difficulty, to those of the greatest possible intensity.

High degrees of heat and cold are proportionably injurious. By the painful sensations which they excite, they serve to admonish us of danger, and those sensations themselves conspire with the danger which they indicate, to excite the most urgent desires and efforts for relief.

Persons are more or less sensible to heat and cold, and all the different degrees of the same, according to the state of their health, their natural delicacy or vigor, and their

cotemporary exercise of other classes of sensations, ideas, affections, &c.

A more than ordinary susceptibility of heat and cold, is one of the premonitory and attending symptoms of numerous diseases, and exposure to high degrees of cold, is a frequent cause of disease.

3. Sensations of pain.

We are subject to numerous similar sensations of a painful nature, which do not belong to either of the classes above specified, which are not among the immediate exciting causes of the appetites, and are not modifications of weariness and fatigue, or of heat and cold, but which are usually denominated pains and aches, as pains in the head, teeth, or limbs; or the head-ache, tooth-ache, &c.

Almost all the diversified forms of acute and chronic diseases, and almost all injuries from external violence, are attended with pains. This is the case with fevers, inflammations, contusions, and fractures of every kind.

All the different parts of the body are capable of serving as organs of this class of sensations. The susceptibilities of different persons, in respect to this class of sensations, vary according to the different principles which have already been brought to view.

A slight and transient organic derangement or injury, produces a slight degree of pain, and continues to produce it, till the sensibility of the organ is impaired, or the injury repaired. A more serious injury, or one which affects a more vital part, and is therefore proportionably more dangerous, usually excites a higher degree of pain, in proportion to the extent of the injury, and the delicacy and importance of the part affected.

Thus an injury on one of the limbs, of small extent, may be attended with but little pain, and that only for a short time; while one of far less extent on the eye, the ear, lungs, or head, may be attended with intense suffering, and may continue for a long time to be so attended.

The highest degrees of pain are not entirely unremitted. They may be suspended by the excitement of other classes of sensations, by ideas, emotions, affections, &c., and also by sleep.

To experience those states of the bodily organs which are adapted to produce pain, is one thing, and to experience pain another. The former is continual during certain periods, the latter occasional or remitted. What is generally considered continual pain, consists usually of a series of painful sensations, more or less protracted, and separated from each other by longer or shorter intervals of repose or relief from the occurrence of other mental exercises.

The office of pain is to advertise us of some derangement or injury of our bodily organs, and to excite us to exert ourselves for the correction and repair of the same. It forcibly calls our attention to the part or parts in which it occurs; indicates by its intensity the dangerous nature of the injury sustained or threatened, and excites desires for relief from its own painful exercises, which co-operate with those originating in the ulterior injury of which itself is only the index, in prompting us to take effectual measures for the repair of the injury sustained, and the prevention of future injuries.

The liability of the human race to pain, is thought by many to be a great evil. The opposite is the fact. It is one of our greatest blessings. The capacity of experiencing this numerous class of sensations, is of the greatest service to us in every age and condition. From its exercise we derive important information, respecting our physical condition and prospects, which can be obtained from no other source.

A class of sensations in the place of pains, equally various but less distressing, or not at all unpleasant, might answer the same purpose with them as indications of our physical condition, but would not command attention with equal force, or serve to increase the motives to be derived from other sources, to correct the irregularity or repair the injury which should give occasion for such monitions, in the same degree as is now done by pain. Such a change in the human constitution may easily be conceived of as possible, and to superficial reasoners, or those who neglect to reason at all on the subject, may appear desirable. But it may as easily be shown to be highly undesirable.

The kind offices of pains, and such as could not be performed by sensations not painful or unpleasant in an equal degree, are innumerable and of incalculable value. They embrace thousands of instances of restraint from courses of action which would prove injurious, and thousands of instances of the performance of actions which are of essential and vital consequence to our well being.

SECTION IV.

SENSATIONS OF TOUCH.

Touch denotes the contact of different bodies at their surfaces or extremities. It is also applied to designate one of the classes of sensations common to man and other animals, and the faculty or power of receiving these sensations. The sense of touch is the capacity or susceptibility of experiencing sensations called by this name. The sensations of touch are the exercises of this susceptibility or capacity.

All the external parts of the body are endued with this susceptibility. It is also diffused, in some degree, over the internal cavities, particularly those of the mouth, ears, nostrils, &c., in several of which it is particularly delicate.

Mere contact is not sufficient to produce sensations of touch. Objects may, in many cases, come in contact with sensible parts of the body, without exciting any degree of sensation. In order to excite sensation, there must be some pressure exercised by the tangible object, on the part of the body to which it is applied. Pressure conjoined with motion, conduces to the production of sensations of touch, in the highest degree of perfection. A moderate pressure, conjoined with motions of moderate velocity, are best for this purpose; and are constantly made use of in the voluntary exercises of this faculty.

If we wish to feel of any object, we apply the hand or fingers to it with greater or less degrees of pressure, till

we have attained that which is best for the purpose, and move them over it with greater or less degrees of velocity, till we attain the proper degree. The degrees of pressure and velocity requisite in different cases are different.

The sensations of touch are of several varieties, which differ considerably from each other, and which are either pleasurable, painful, or indifferent. Some of them are highly pleasurable, and some extremely painful.

The nature of the sensations of touch on the different surfaces which are susceptible of them, varies according to the ends which they are designed to answer. When there is a necessity for their being pleasurable, they are so; when there is a necessity for their being painful or indifferent, they are painful or indifferent.

The chief end of the sensations of touch is information. They are chiefly important and interesting as means to this end; not as ultimate pleasures. On this account they are generally exercised for the purpose of attaining information; not for that of enjoying them as ultimate pleasures. The pleasure of the information they afford, is far greater than that involved in the sensations which are adapted to afford information.

The primary judgment, based on the sensation of touch, is simply that of resistance. Resistance may exist in different degrees, from the least which is perceptible, to the greatest which can be endured. The sensations of touch may be experienced in a single point, or on a surface of greater or less extent. In most cases they are diffused over surfaces of perceptible extent.

Sensations of heat and cold often accompany those of touch, but are entirely different from them, and ought to be distinguished.

There is no more propriety in confounding them, than in confounding touch and taste, or taste and heat. The sensations of touch may be experienced in the mouth contemporaneously with those of taste, and on the same material organs; but they are not sensations of the same class. So we may feel the sensation of touch, and heat or cold, at the same instant, and on the same parts of the body,

but they are not on that account, or any other, to be considered as sensations of the same class.

The material organs of touch are the skin and muscles. The agent, as in all other cases of sensation, is the mind.

The skin consists of three parts, called by anatomists, cutis vera, the true skin; rete mucosum, the mucous net; and the scarf skin, or cuticle.

The cutis vera, or true skin, is separated from the flesh by a cellular substance, the cells of which are filled with fat. It is profusely supplied with blood vessels and nerves. Its nerves are so numerous, that it cannot be perforated by the point of the finest needle without wounding some of them. The color of the true skin is nearly the same in all races of men, being extremely light.

It is adapted to purposes of sensation by the extreme delicacy and number of its nerves.

The rete mucosum is a thin layer which covers the true skin, for the purpose of protecting it from the injurious action of air, light, and heat. It is black, copper-colored, yellowish, or white; and determines the complexion of individuals and races accordingly.

The scarf skin, or cuticle, covers the rete mucosum, and is pellucid, rough, insensible, and of different degrees of thickness. In the palms of the hands and on the soles of the feet, it becomes very much thickened by the action to which those parts of the body are applied.

The skin is an organ of absorption and perspiration, as well as of touch. The former processes, however, are not sensible. It is extremely elastic, and in that respect is similar to the muscles. It is not only susceptible of the sensations of touch, but is peculiarly susceptible of pain from local injury, and of heat and cold. Most of the pain which is experienced in surgical operations, arises from the injury of this part of the system.

Next to the skin, the muscles generally participate in the sensations arising from resistance, and are more or less exercised in all cases of touch.

The slightest pressure with the finger or hand, exercises both some parts of the skin, and some of the muscles; to

wit, those of the finger or arm. So of every other instance of pressure or resistance.

The muscles consist of parallel fibres distributed in bundles, the larger of which are discernible by the naked eye. These, however, are subdivided into smaller bundles, and they into smaller still, indefinitely. They are capable of alternate contraction and relaxation. When a muscle acts, it becomes shorter and thicker than at other times. The human body contains about two hundred pair of muscles, besides some which are single. Those muscles which are contracted and relaxed independently of the will, are called involuntary. Those whose contraction and relaxation depend upon the will, are called voluntary. Some are of a mixed character, of which those concerned in respiration are an obvious example.

Each division and subdivision of the muscular fibres, is surrounded by a cellular membrane, at once separating and uniting them.

The nervous and muscular systems are intimately connected. Every muscle has its due supply of nerves, which enter it generally in different branches, and become so minutely divided and dispersed among the muscular fibers, as to be incapable of being traced with accuracy to their terminations.

The vital functions of the muscles, both voluntary and involuntary, are performed under influence exerted by the mind through the nerves. If the nerves are destroyed or cut off, the muscles with which they communicated become inefficient and useless.

The nerves connect every muscle with the brain and spinal marrow, and with the mind; and their agency is concerned in every instance of vital action, and of sensation. This is true of the sensation of touch, in common with others. The capacity of experiencing this sensation, belongs to the skin and muscles generally, not to either exclusively. Whenever muscles are contracted or relaxed by resistance, then the corresponding sensation may be experienced; provided a due supply of nerves is afforded for the purpose.

The nerves of sensation and motion, however, are not the same, and the presence of the latter does not necessarily imply that of the former.

Some parts of the body are supplied with nerves of motion in a greater degree than with those of sensation; and in general, the two are distributed in a manner which has appeared best to the eye of infinite wisdom and goodness, and which challenges the severest scrutiny.

Mere contact, without some degree of resistance, excites no sensation.

Ideas of resistance, extension, hardness and softness, smoothness and roughness, locality, identity and diversity, number and quantity, are all capable of being derived from touch by an exercise of reason; but they form no part of the sensation. They are all inferences from sensations. For example: bodies are considered as hard or soft, according as the resistance they offer to touch is greater or less; from their contiguous resistance in more than one point, we infer that they are extended; when the points of resistance are immediately contiguous, and in the same plane, they suggest the idea of smoothness; when they are not immediately contiguous, and are in different planes, they suggest the idea of roughness; the different positions of resisting points and surfaces, with respect to each other, suggest the idea of locality, also of diversity and number; the continued or repeated experience of similar resistance at the same point or points, or on the same surface, and in the same plane, suggests the idea of identity; extension is an inference from locality.

The above and other similar ideas and classes of ideas, which are intimately associated with touch, are not sensations, but judgments founded on sensations.

SECTION V.

SENSATIONS OF SIGHT.

The exclusive organ of sight is the eye. The ball of the eye serves as a medium of refraction, which brings

the divergent rays of light from luminous and visible objects to a focus, and thus forms complete pictures of the same. These pictures are received on the retina, an expansion of the optic nerve, which covers the whole posterior part of the internal globe of the eye.

The retina is the seat of vision, or of the sensations peculiar to the eye; light is the instrument of vision, and the convex ball of the eye, consisting of different membranes and humors, or liquids, is an instrument for the refraction of light and the formation of pictures on the retina.

The dark circular space in the center of the front part of the eye, is called the pupil. The colored portion of the eye, immediately around the pupil, is called the iris, from its resemblance to the rainbow. That part of the eye which covers the iris and pupil is transparent, and is called the cornea. The iris is variable in extent, contracting and enlarging on its interior boundary, so as to diminish or enlarge the circular opening which it encloses according to the intensity of the light received. By this enlargement and contraction, the eye is enabled to accommodate itself within certain limits, with that degree or amount of light which is best fitted for the purpose of vision. When the light is too intense, the iris instantly becomes dilated, and the pupil proportionably contracted; when it is too feeble, the iris contracts and the pupil becomes proportionably enlarged.

The pupil or circular opening, therefore, through which light is admitted for the purpose of vision, is subject to constant variation in size, and is inversely as the degree or intensity of light enjoyed.

Light proceeds from every point of a luminous or visible surface, to every part of the pupil, in divergent and conical rays or pencils. The same rays are so refracted by the cornea, aqueous, crystalline, and vitreous humors, parts of the eye through which they pass, as to become convergent, and meet in points on the retina, where they form a complete inverted and diminutive sensible image of the surface from which they emanated. The light, as it impin-

ges on the retina, corresponds, in every respect, to the same, as it emanates from a visible body.

The effect of light thus received, is a certain sensation, denominated color, nothing more. Every point of the retina on which it is received, is susceptible of these sensations. Consequently we may experience contemporaneously, an indefinite number of sensations of color. The extreme delicacy of the retina renders it susceptible of sensations infinitely diversified, according to the kind and intensity of light which it receives. Our sensations of color vary according to the intensity of light of the same kind, by which they are excited, and also according to the different kinds or combinations of this element, which are capable of being infinitely diversified.

The perfection of the eye requires both that all of the several parts of which it is composed, should be perfect in their kind, and that they should possess the relative size and position, which are requisite in order to secure the perfect convergence of the rays of light from visible objects on the retina.

This organ may be defective in three ways; (1.) by the diseased condition of some one or more of its parts, by which they lose their transparency, or refractive power; (2.) by too great convexity of the refracting media, compared with the position of the retina, whereby the convergence of the light is effected, before it reaches that part of the visual organ; (3.) by too little convexity of the refracting media, whereby the convergence of the light is not effected on its reaching the retina.

The eyes of near-sighted persons are too convex, and those of the dim-sighted, from age, not enough so. To remedy these deficiencies, the former use concave glasses, and the latter convex.

The eye is simply an organ of the sense of color; and the peculiar sensations received by it, are those of colors, or of light only.

These sensations serve as the basis of numerous judgments respecting the existence, location, distance, size, form, and nature, of visible, or color-producing objects. The sense of sight alone, however, could never give us

the ideas of extension, figure, locality, &c., which are now constantly associated with the exercises of this sense. These ideas are derived from touch, and are connected with sight by association.

Vision consists of several consecutive and cotemporaneous judgments, based on the sensations of color, and having relation to the existence, form, position, distance, &c., of the body from which the light, productive of those sensations, proceeds. In vision, we judge of objects as causes of the sensations of color, and of other sensations, which similar objects have been found, in our former experience, capable of producing.

The sense of color leads us to form an idea of its cause, and to identify that cause, where we can, with the cause of other different sensations, such as touch, smell, taste. Thus I experience the colors produced by a rose, and form a number of cotemporaneous and consecutive judgments respecting the locality, size, form, smell, taste, texture, &c. of the cause of those colors.

SECTION VI.

SENSATIONS OF HEARING.

The organ of hearing is the ear. The external ear is formed of a fibrous, elastic cartilage, and is attached to the side of the head by a cellular tissue, and by muscles which, in the case of man, are but partially developed. The human ear presents five eminences, and three cavities. The ear-tube, or meatus auditorius, is an aperture extending from the external ear, and in an adult person, is about three quarters of an inch in length. At its termination is the tympanum, which separates the external from the internal ear. Beyond the tympanum is the internal ear, or labyrinth, composed of several cavities, communicating with each other, covered with a very thin membrane, filled with a thin liquid, and pervaded by the acoustic nerve. The internal and middle ear are traversed by

several other nervous threads, besides those of the acoustic nerve.

The auditory or acoustic nerves are the seventh pair, not much larger than sewing threads, before entering the ear. They assume a variety of shapes in the different tubes, sacs, canals, and pits of the ear.

The sensation peculiar to the ear, is that of sound. It is produced by a vibratory or tremulous motion of the particles of sounding bodies, communicated first to the air, then through the air to the tympanum, or drum of the ear, and through the tympanum to the other parts of that organ, in which the different branches and portions of the acoustic nerve are contained.

The sensations of sound differ in respect to tone, intensity, and simplicity. They may be either grave or acute, strong and loud, or weak and low, simple and melodious, or complex, harsh, destitute of melody, &c., of many different varieties.

Sound is capable of great variety, in respect to tone, from the lowest or most grave, which the air is capable of communicating, embracing thirty-two vibrations per second, to the most acute, embracing twelve thousand.

The strength or intensity of sounds depends on the extent of the vibrations by which they are produced. These admit of considerable variety, but are restricted within certain limits.

The simplicity and complexity of sounds depend on the simplicity and complexity of the sounding bodies by which they are produced. Sounding bodies of uniform density and elasticity, and of regular figures, produce simple sounds. Others produce sounds more or less complex. Where different parts of a sounding body vibrate in different and irregular times, their sound is complex and harsh.

The capacity of hearing, like that of sight, exists in different degrees of perfection, in different persons. Some are capable of distinguishing different sounds much more readily than others, and of distinguishing much smaller differences either in tone, intensity, or complexity. The

hearing of some is more perfect than that of others, in proportion to the greater perfection of this organ.

What is called a musical ear, is partly natural and partly artificial. It requires such a degree of perfection in the acoustic apparatus, as enables the mind to discriminate easily between different tones, to discover and appreciate harmony, and detect discords. This capacity, however, may exist undeveloped. It is necessary, therefore, to the formation of a musical ear, that it should be in some degree developed by observation and exercise.

Musical sounds are divided into octaves, or series of eight notes, which are separated by unequal intervals, called tones and semi-tones. The vibrations of an octave are twice as frequent as those of the first note in the scale.

Every octave contains five tones and two semi-tones. Those notes which are agreeable to the ear, when sounded together, form concords; those which are disagreeable, discords. The 1st and 8th, 1st and 3d, and 1st and 5th, are examples of concords or accordant notes.

Vocal language and music are both addressed to the ear, and consist simply in sounds, which are the only sensations they excite. The various ideas of sounding bodies, their distances, conditions, &c., are associations and deductions of reason, but form no part of the sensations which are received by the ear.

SECTION VII.

SENSATIONS OF TASTE AND SMELL.

1. Sensations of taste.

The principal organ of taste is the tongue. The internal surfaces of the lips, cheeks, &c., seem to share a similar susceptibility, in some degree. The gustatory or lingual nerve of the fifth pair, terminates on the surface of the tongue, in the form of small tubercles, beginning at the point, and extending to the throat. Several other nerves

are distributed to the interior parts of the mouth, and are, probably, exercised more or less in the sensations of taste.

The salivary glands facilitate the exercise of taste by the secretion of saliva, which serves as a solvent or diluent of sapid bodies. When the mouth becomes dry, taste is not easily exercised.

Those bodies which are capable of producing the sensations of taste, are called sapid. Taste is the sensation produced on the organs of taste by sapid bodies. In order to produce their respective varieties of taste in the highest perfection, sapid bodies ought to be retained some time in the mouth. When swallowed or thrown out immediately, their full effect is not produced.

Taste is simply a sensation. It is generally exercised contemporaneously with the sense of touch. Different flavors or tastes are characterized as sweet, bitter, acid, agreeable, disagreeable, &c. The same flavors are agreeable to some and disagreeable to others; and agreeable in one period of life and disagreeable to the same person in other periods.

We judge of the healthful and unhealthful character of food and drinks chiefly by taste; and are directed chiefly by this sense, in making choice of our food and drinks.

2. Sensations of smell.

The organ of smell consists of the pituitary membrane, which lines the cavities of the nose; of the membrane which covers the sinuses, and of the olfactory nerve. The pituitary membrane covers the whole of the nostrils. It is furnished, abundantly, with nerves and other appropriate vessels. The upper passages from the nostrils to the throat, communicate with certain cavities hollowed out of the bones of the head, called sinuses. The membrane which covers the sinuses, secretes the nasal mucus by which the pituitary membrane is constantly moistened, and which facilitates the exercise of smell, very much as the saliva does that of taste.

The olfactory nerve springs by three roots from the posterior, inferior, and internal parts of the anterior lobe of the brain. It diffuses itself by a great number of small threads over the pituitary membrane, and is distributed,

most abundantly, to the superior part of it. The filaments of this nerve have never been discovered in the sinuses, or in the middle passage to the throat. Other nerves are distributed, both to the sinuses and to other adjacent nasal cavities.

Smell is exercised when air, containing odoriferous particles, proceeds through the nose to the lungs. The higher part of the passage is extremely small, and more or less filled with the nasal mucus. This mucus arrests the odoriferous particles, and retains them till their appropriate impression is made on the pituitary membrane, and through that on the mind. Smell is analogous to taste and possesses similar varieties.

SECTION VIII.

THE RELATIONS AND ENDS OF SENSATIONS.

1. The relation of sensations to the mind and body.

Sensations are affections or states of mind, not of matter, or of material organs. Material organs are the instruments of their exercise, not the agents to which they belong. The stomach does not hunger and thirst; the limbs or body, generally, do not experience the sensations of weariness and fatigue, of heat and cold, or of pleasure and pain. The same may be said, with equal propriety, of the organs of the external senses. The skin and muscular system do not experience the sensations of touch, the eye does not experience color, the ear sound, the mouth taste, or the nose smell. The subject of these various classes of sensations is one and the same. It is the mind.

Sensations are particular affections or states of mind, produced by particular affections or states of the body. They accompany certain states of the body as their effects, and are made to do so by God, in the exercise of the same sovereignty by which he has connected antecedents and consequents, causes and effects, in all other cases.

The phenomena of sensation clearly indicate the existence of one sentient being, communicating with all parts of the body, but not identical with it, or with any part of it. The ascription of sensation to the organs of sense, or to the brain, as the ultimate agents concerned, is entirely unsupported by the semblance of evidence. The organs of sense experience certain physical effects from the action of external objects. These effects may act through the nerves upon the brain, and produce certain other physical effects upon that organ. The physical effects produced on external organs of sense, result in particular states of those organs, and the physical effects produced by them on the brain, result in particular states of the brain; but they leave sensation entirely unaccounted for. That which is the subject of sensation, is manifestly something different from the brain, and from any or all other parts of the body.

Sensations relate both to mind and matter. They relate to the mind which experiences them, as the only subject to which they all belong, and to matter in its various forms, as the objects by which the mind is operated upon in their production.

The three requisites for sensations are,

- (1.) A mind;
- (2.) Organs of sense with which the mind communicates;

(3.) External objects adapted to the organs of sense.

External objects alone cannot produce sensations. They cannot do this by acting on material organs, which have no connection with a mind or sentient principle; neither can the mind obtain sensations without organs and objects. Had it been left unfurnished with organs of sense, it could never, as now constituted, have experienced sensations; and had it been furnished perfectly with those organs, as it now is, or in any conceivable manner, and yet left without objects to act upon them, its furniture would have been perfectly useless.

The organs of sense are simply mediums of communication between mind and matter. They are adapted to the mind with which they communicate on the one hand,

and to matter of different kinds on the other. They are material, and consist of particular portions of organized matter. Their formation, preservation, and destruction, take place in conformity with uniform laws which God has established. The same is true of their connection with the mind, to whose service they are respectively devoted. This connection commences, continues, and terminates in appropriate circumstances. In circumstances appropriate to its commencement, it commences ; in those appropriate to its continuance, it continues ; and in those appropriate to its dissolution, it terminates.

When divested of the organs of sense at death, the mind is thrown back upon the hands of God, to be provided with such other capacities as he sees fit to bestow. Its introduction to another state at death, will doubtless be analogous to its introduction to the present state at birth, so far as the bestowment of new capacities and powers is concerned. The powers and capacities requisite for this life, are bestowed on the mind at birth ; those which will be requisite for the life to come, will, no doubt, in like manner be conferred at death, the period of our being born into another world.

Death divests us entirely of all the organs of sense, and consequently of all capacity of experiencing sensations of any kind. Our birth to another world will probably invest us with other capacities, of a similar but higher nature.

2. The relation of sensations to ideas.

The relations of sensations to ideas, are those of immediate and direct antecedence and conditionality, which is the case with perceptions of sensible objects ; or of remote and indirect antecedence and conditionality, which is the case with all ideas which result from perceptions, by successive inferences or judgments.

(1.) Sensations excite ideas of material objects, and are necessary to their occurrence.

Our minds are affected in certain modes by means of the stomach, limbs, skin, muscles, eyes, ears, &c., which we denominate sensations. From our sensations we infer the existence of sensible objects. These inferences are usually called perceptions. Perception does not take

place by the senses directly. The senses are not organs of perception. By them we obtain sensations only, and from sensations infer sensible objects. For example: Touch, or the sensation which arises from applying the hand to an external object, is a sensation, or state of mind. On turning the eye in the direction of an object of touch, we become sensible of color. Resistance and color are capable of cotemporaneous excitement, and of indefinite continuance. We infer from them, the existence of a tangible and visible object. That which excites touch is tangible. That which excites color is visible. Having thus attained the idea of tangible and visible objects, we infer from touch and sight, their other qualities and relations of locality, extension, form, &c.

Without sensations of some kind, ideas of material objects cannot be suggested, or exist. The senses are the exclusive organs of the mind, by which it experiences touch, sees color, hears sounds, and experiences tastes and odors. Without touch, we could form no idea of resisting extended and figured bodies; without sight, none of visible or colored ones, and so of the other senses; and with no sense at all, we, of course, could form no idea of sensible objects of any kind whatever.

(2.) Sensations are necessary to ideas of any kind. They are the fundamental series of mental phenomena, from which all others take their rise.

Sensation is a wonderful expedient for the development and exercise of the faculty of ideas, and of the emotions and affections dependent thereupon. It sustains similar relations to the ideality and affections of animals and of men. The lowest grades of animals, and men of the highest orders of intellect and affections, are equally indebted to sensations as the indispensable conditions of all their intellectual and moral attainments. God, doubtless, might have created us capable of the exercise of reason by other means, and he may furnish us with other endowments in a future state, which will supersede the necessity of these. But in the present life, sensation is indispensably necessary to the development and exercise of our other mental faculties of conscious exercises in any degree.

Without it, the first exercise of judgments, imaginations, reminiscences, and affections, and their continued exercise after having been developed by this means, are alike impossible.

3. The relation of sensations to voluntary action.

The relation of sensations to acts of will is twofold, that of subjection and government.

(1.) The subjection of sensations to voluntary action.

We are capable of producing and suspending all those sensations for which we have the requisite faculties and objects, in conformity with appropriate choices, purposes, and volitions. Voluntary heat and cold, weariness and fatigue, hunger and thirst, pain, touch, sight, hearing, tasting, and smelling, are all equally of this description. They are of daily and hourly occurrence, as the effects of volition, and their exercises are daily and hourly suspended by means of the same agency.

Our voluntary control and determination of our sensations of different orders is accomplished,

1. By preventing or securing the concurrence of circumstances and organic impressions, adapted to produce them.

2. By attending to such organic impressions when they occur.

3. By withholding our attention from other objects, and desisting from other mental exercises inconsistent with that of sensations.

Capacities of sensation and sensible objects, are the two indispensable conditions of sensation. We cannot attain sensations which we have not capacities to exercise, and we have no capacities to exercise them independently of their appropriate exciting causes and objects.

(2.) The influence of sensations in determining voluntary action.

Sensations are, in many cases, the causes as well as the objects of voluntary action. They lead us to perform actions, which otherwise we should not perform, in numberless instances, and during every day and hour of our conscious existence. In connection with other appropriate

principles of action, they contribute largely to the proper exercise and direction of all our mental faculties.

Painful and pleasurable sensations tend to produce corresponding affections and desires, and these affections and desires, corresponding voluntary mental and bodily actions. The ordinary engagements and pursuits of mankind, both of business and pleasure, depend, to a considerable extent, on motives derived from this source.

Other motives concur in leading us to pursue them, but without the additional influence exerted by these, would be entirely inadequate to produce the beneficial results now attained.

The knowledge of our capacity to experience different classes of sensations, exercises an influence in determining our voluntary actions, similar to that of the sensations themselves, when in exercise. It leads us to act with a view to avoid sensations which are displeasurable, and to obtain those which are pleasurable.

So that sensations in exercise excite corresponding desires and affections, leading to corresponding voluntary actions ; and ideas that we are capable of attaining them by means of certain objects, and voluntary exertions, do the same.

The office of sensations, as principles of voluntary action, is of the highest importance. Even those which are most painful are capable, in most cases, of subserving our highest interests, both as means of information and motives to rational effort. This is the case with pains which indicate the physical derangement of some one or more bodily organs, and with every class of painful sensations.

The loss of any single natural capacity of painful sensations, or of any degree of susceptibility to the exercises of the same, which is characteristic of a healthy condition of the organs, and a well regulated state of the mind, would be a calamity to be equally deprecated and deplored with a loss or injury of the eye or ear.

The senses of animals are still more commanding in their influence over the animal will, than those of man are over the human will. The affections and desires of animals are almost entirely dependent on this class of exer-

cises. Consequently, they are incapable of exercising that self-government which is the prerogative and glory of man. Whither their sensations impel them, they go ; and whatever they judge to be an object of the most agreeable sensations, they pursue ; without any check from contradictory emotions, and from their corresponding opposite affections and desires.

The higher faculties of emotion given to man, and their corresponding affections and desires, are designed to act cotemporaneously with the accompanying faculties of sensation, as joint principles of action.

The proper exercise and improvement of our different capacities of sensation, so as to adapt them to the ever varying circumstances of our being, requires constant attention and effort. Negligence, in a single instance, is often attended with disastrous effects, which no subsequent exertions can prevent or remedy. The greater the judgment and discretion with which we prosecute the voluntary exercise of sensations, the greater is the benefit which will accrue to us from the exercise of these faculties.

Every class and variety of sensations, ought to be exercised on their appropriate occasions, and for their appropriate ends, in that degree, and with that frequency, which is necessary to the greatest present and eternal happiness of ourselves and other beings.

The degrees of susceptibility of sensation with which we are endowed, and which we are capable of attaining, are exactly such as we need in the present life. They serve as channels of important information and motives to useful exertion. They do not, indeed, afford us all the information, or impel as strongly and exclusively to useful effort, as we might desire. But they furnish us the means of all that information which is necessary to our present and future happiness, and furnish powerful motives to many of those voluntary actions which are of the highest necessity, in order to the attainment of the same.

All sensations are within the body. Some of them are produced by causes operating on their organs within the body ; some by causes operating in immediate contact with the same ; and some, as is the case with sensations of

sight and sound, by causes operating from greater or less distances, and with degrees of energy inversely proportionate to the squares of those distances.

We learn, at an early period, that some of our sensations are useful, and others injurious, or the indications of operations which are injurious, and exercise our voluntary powers in multiplying, prolonging, and increasing the intensity of those which are useful, so as to promote their greatest possible usefulness, and in suspending and avoiding those which are not useful.

The consequence of these voluntary exercises is the improvement of the capacities of sensation most exercised, in a degree proportionable to their superior comparative usefulness. All the senses are susceptible of education and improvement by this means.

The blind, for example, are capable of such improvements of their susceptibilities of touch, and of their capacities of judgment therewith connected, as to compensate, in a considerable degree, for the loss of sight. Sight and hearing, and all the senses, are more or less acute and discriminating, according to the frequency, accuracy, and energy with which they are habitually exercised.

The capacity of attaining increased susceptibilities of the different classes of sensations, by exercise, is subservient to highly important and useful purposes. It renders us capable of modifying this class of our mental faculties in conformity with our varying necessities, in different periods and circumstances of life; and tends, in all conditions, to give those capacities of sensations the greatest susceptibility, which, in those conditions, are of the greatest and most frequent use to us.

The dependence of sensations on bodily organs, and particular organic impressions, clearly shows that this faculty is not a necessary susceptibility of the mind as such, but an accidental or special endowment, which may be given or withheld, without affecting the existence or reality of the being to whom it is given, or from whom it is withheld. That the mind may exist without sensations in actual exercise, we know from experience and observation; that it may exist without capacities of sensation, we

are authorized to infer, from the dependence of those capacities on material organs and organic states. The connection between particular states of the organs of sense and particular sensations, is one of causality and dependence. No account can be given of it, except by referring it to the will and ordinance of God. Particular states of the organs of sensation, lead to the exercise of their appropriate and diversified sensations, because God wills and ordains it should be so.

Considered merely in respect to sensations, man does not differ essentially from the lower tribes of animals. Many of them possess all the generic faculties of sensation which belong to human beings, and some of them possess several of these faculties, in greater degrees of energy and acuteness than men.

The acknowledged and manifest superiority of man to animals, is not derived from greater or more numerous capacities of sensation, but from the superiority of other and higher faculties hereafter to be considered.

PART SECOND.

IDEALOGY, OR THE PHILOSOPHY OF IDEAS.

CHAPTER I.

THE GENERIC PROPERTIES AND ORDERS OF IDEAS, AND THE IDEAL FACULTY.

SECTION I.

THE GENERIC PROPERTIES OF IDEAS.

THE next co-ordinate class of mental phenomena to sensations, is that of ideas. Of these, all our knowledge and imaginations consist.

Ideas differ from sensations in their essential properties as objects of consciousness, in the manner of their occurrence or the means by which they are excited, and in their relations to other classes of mental phenomena.

They are equally with sensations, from which they take their rise, objects of knowledge. We are conscious of them as we are of all mental phenomena of the other orders, which are objects of consciousness. Considered as objects of consciousness, they are similar to sensations. In other respects, they are entirely different from them and from all other known phenomena, both of matter and mind.

The quality of ideas embraces elements which all ideas possess in common, and by which they are distinguished from other phenomena; also those by which one idea and one class of ideas differ from others. There are elements which all ideas possess in common, as there are those which all sensations, or all phenomena, of any other class, possess in common. There are also elements

by which all ideas differ in common from phenomena of every other class; and those by which each particular idea and class of ideas differs from every other.

All the qualities which belong to ideas merely as phenomena, belong to them in common with all other phenomena; all those which belong to them as mental phenomena, belong to them in common with all other mental phenomena; all those which belong to them as mental phenomena, which are objects of consciousness, belong to them in common with other mental phenomena, which are objects of consciousness. So, on the other hand, all those qualities by which ideas differ from the phenomena of matter, from the unconscious phenomena of mind, from mental phenomena of other co-ordinate classes, such as sensations, emotions, &c., and from other ideas, belong to them as distinct and peculiar phenomena and classes of phenomena, and are the basis or ground of their separation from phenomena of other orders, and from other phenomena of the same order.

Ideas are: 1. phenomena; 2. mental phenomena; 3. mental phenomena which are objects of consciousness; 4. mental phenomena which are objects of consciousness, and which have certain peculiar properties in common, whereby they are distinguished from conscious mental phenomena of other orders.

The generic properties of ideas, which they possess in common with mental phenomena of other generic orders, are:

1. Relations to consciousness as immediate objects of knowledge;
2. Relations to the mind as mental phenomena, in distinction from those of matter;
3. Relations to the faculty of knowledge and conception, as capable, in various ways, of being known and considered;
4. Relations to time as continuous.

1. The relation of ideas to consciousness.

Ideas are equally, with sensations and emotions, objects of consciousness. By ideas we know our sensations, and by other ideas we know our cognitions of sensations; so

of every other class of ideas. An idea does not involve a knowledge of itself, but it sustains such relations to the mind as to be capable of being known directly. It possesses this property in common with sensations, emotions, affections, desires, and acts of will, but in distinction from those mental phenomena which are not objects of consciousness, and from all the phenomena of matter.

2. The relation of ideas to the mind as its phenomena, in distinction from those of matter.

It is impossible to conceive of ideas without conceiving of them as phenomena, having respect to some subjective cause or agent. Ideas are not independent absolute entities, but states or manifestations of some entity which they reveal. In this respect they are similar to sensations, and other orders of mental phenomena, which are objects of consciousness. Sensations are exercises or experiences of beings endued with capacities of sensation, and ideas of those endued with capacities of thought. The simplest possible conception of sensations, involves the idea of beings which exercise or experience them, and the simplest possible conception of ideas, that of beings which exercise and experience them.

3. The general relations of ideas to the faculty of knowledge and conception, as objects of thought.

Ideas are capable of being known by other means than as direct objects of consciousness, or of memory founded on previous consciousness. We are conscious only of our own ideas, but we are capable of learning many of the ideas of others.

We do not ascertain the ideas of others by consciousness, or as the immediate objects of sensation. We have no consciousness of them, and no power of discovering them as the direct objects of sensation. They are not tangible, visible, or audible; and are objects of consciousness only to the persons who exercise them, at the time of their being exercised. Yet no class of phenomena are more easily or accurately understood, or the objects of more general attention, than the ideas of others.

4. The relation of ideas to time as continuous.

Continuity is one of the properties of sensations, and the other co-ordinate genera of mental phenomena. Every sensation is more or less continuous. The same is true of all phenomena, both of matter and mind. A phenomenon which is not continuous, in any degree, is impossible. Ideas possess continuity in common with other phenomena. They cannot exist without it. They may continue during longer or shorter intervals, from those which are indefinitely short to those which are indefinitely long, but they cannot exist without some continuance.

The generic properties of ideas, which are peculiar to them as a distinct order of mental phenomena, are :

1. Quality as objects of consciousness ;
2. Want of measurable intensity ;
3. Relations to objects of thought ;
4. Relations to other co-ordinate genera of mental phenomena, and to other ideas.

1. The quality of ideas as objects of consciousness.

In being objects of consciousness, ideas are similar to sensations and other co-ordinate genera of mental phenomena. But their quality as objects of consciousness, is different from that of any other class of mental phenomena. To be conscious of a sensation, is to have an idea of an existing sensation ; to be conscious of an idea, is to have an idea of an existing idea. A sensation bears the same relation to its idea of consciousness, that an idea does to it.

Our first knowledge of sensations consist in ideas of them, which are obtained directly by consciousness ; and our first knowledge of ideas, consist in ideas of them which are obtained by consciousness. To these primary ideas, and to others derived from this source, additional ones are subsequently added, which are derived from other sources ; all of which, constitute all that we know on these subjects. Ideas of different sensations are similar, therefore we judge sensations to be similar ; ideas of ideas are similar, therefore we judge ideas to be similar ; ideas of ideas differ essentially from those of sensations, therefore we judge ideas to be essentially different from sensations.

Ideas are the matter and immediate instruments of all our knowledge. Our knowledge consists of ideas, and relates to objects only as objects of ideas. What is not an object of thought, cannot be an object of knowledge. The generic qualities of ideas which are peculiar to them as objects of consciousness, are those by which we generally distinguish this class of phenomena from others that accompany them.

We can easily distinguish ideas from sensations, and from other mental phenomena, such as emotions, affections, and desires, by their generic qualities as objects of consciousness. We are conscious of an idea as being one thing, and of a sensation, whether accompanying it or not, as being another and different thing.

2. The unintensive nature of ideas.

Measurable intensity is characteristic of sensations and other classes of mental exercises, which are objects of consciousness. Whenever we think of intensive phenomena, we think of them as having certain degrees of intensity. We describe some sensations as more intense, and others as less so. The same is true of emotions, affections, desires, and acts of will.

Ideas do not differ from each other in this respect. They are capable of being distinguished, and possess obvious distinguishing properties; but intensity is not one of them.

Ideas which relate to mountains, continents, rivers, and systems, are no more intense than those which relate to hills, islands, tapers, mites, and infinitesimals; and one idea of a mountain, or of any other object, is no more intense than another.

Ideas of mountains may be advantageously compared with those of hills, and be found to agree or differ; those of continents with those of islands; those of rivers and systems with those of tapers, mites, and infinitesimals; and ideas of any one kind whatever, with those of other kinds. So, also, ideas of the same kind may be compared with each other, and the same idea at one time may be compared with itself at other times.

These comparisons, however, must have respect to properties which they possess, and in which they may either

agree or differ; not to properties of which they are destitute, and which belong exclusively to other co-ordinate genera of mental phenomena.

3. The relation of ideas to objects of thought.

The objective relations of ideas are among the generic properties which they all possess in common with each other, and by which they are distinguished from every other class of phenomena. Strictly speaking, sensations, and other classes of mental phenomena, which are objects of consciousness, with the exception of ideas, have no objective relations. What are denominated the objects of sensations, for example, are really the objects of ideas, which are excited by sensations; and what are denominated the objects of emotions, affections, desires, &c., are the objects of the ideas which excite emotions, affections, and desires. Objective relations are among the essential properties of ideas. Every possible idea is an idea of some object. To think, and not think of something, is impossible, and is equivalent to thinking and not thinking at the same time.

Ideas relate to their objects as having certain properties. This is the case with ideas of sensations, ideas, and other objects of consciousness; also with ideas of minds and material objects, and of real and imaginary beings.

Every thing which is thought of, is thought of as having certain properties. To think of something which has no properties, is the same as to think of nothing, or to have no thoughts.

Want of intensity and objective relationship are involved in the quality of ideas as objects of consciousness. We are conscious of ideas as phenomena which have no measurable intensity, and which relate to objects. Their relation to objects of thought, is one of their essential qualities as objects of consciousness. The consciousness of an idea is simply an idea of an idea. What an idea appears to be as an object of consciousness, or of other ideas, it is; and all its properties must be in agreement with these fundamental ones.

By consciousness, we ascertain some of the properties of ideas; and by reasoning based on ideas of conscious-

ness, we pursue and extend our discoveries respecting this, as we do respecting other classes of phenomena.

We do not learn every thing about ideas merely by consciousness, any more than we learn every thing about the phenomena of matter, merely by judgments concerning them immediately connected with sensations. Our knowledge of the phenomena of matter, only commences with those judgments which are immediately connected with sensations. So our knowledge of ideas only commences with those judgments respecting them, which are obtained directly by consciousness.

4. The relation of ideas to other mental phenomena.

No other generic order of mental phenomena can produce phenomena of its own order, or of any other order, except ideas. Sensations cannot produce sensations; emotions emotions; affections affections; desires desires; or acts of will other acts of will; without the intervention of other appropriate agencies. Each of these orders is equally incapable of producing either of the others. Sensations cannot produce emotions, or emotions sensations, and so of the others.

All the orders of mental phenomena, which are objects of consciousness, produce the ideas which relate to them as objects of consciousness directly, without the intervention of any instrumentality or agency whatever. Ideas of sensations, as they occur in consciousness, are the immediate effect of sensations; those of emotions, affections, desires, and acts of will, are the immediate effects of emotions, affections, desires, and acts of will; and those of ideas, are the effects of ideas. Those ideas, therefore, which constitute parts of consciousness, are the immediate effects of different generic orders of mental phenomena; effects resulting from causes as different as the different phenomena to which they relate, but which are themselves similar as ideas.

Sensations occur, independently of other mental phenomena. This is not the case with ideas. Ideas are always consequents and effects of other mental phenomena. Those of consciousness, are the consequents and effects of mental phenomena, which are objects of consciousness,

Those which relate to minds and to material objects, as subjective and objective causes of sensations and other accompanying phenomena, are consequents and effects of ideas of consciousness. Without previous ideas of consciousness, we could never experience them; with such ideas, we cannot but experience them.

Consciousness of sensations leads to ideas of sensible objects, as directly as organic impressions, adapted to that purpose, lead to sensations; it also leads, with equal directness and certainty, to ideas of ourselves as subjects of sensation. Consciousness of sensations, ideas, and other generic orders of mental phenomena, produces ideas of ourselves as possessing all these various capacities; not as possessing any one of them to the exclusion of others.

Ideas, therefore, have their origin in sensations and other conscious exercises. They are not of the nature of sensations in respect to quality, or in respect to other fundamental and essential properties. But sensations are among their antecedents and producing causes, and are essential to the production of those which relate to sensation—producing objects and operations, and of all, which are derived from these, as their antecedents and suggesting causes.

Had we been constituted incapable of sensations, and in other respects as we now are, we never could have attained ideas of any kind. It is an essential feature of our constitution, that ideas must arise from previous exercises which are objects of consciousness. Without such exercises of some kind, we are as incapable of ideas as we are of sensations, without organic conditions to concur in their production.

All ideas of consciousness are the consequents and effects of those phenomena which are objects of consciousness, and are connected with their constant antecedents and causes, as other consequents and effects are with theirs.

Ideas are equally, with sensations, the antecedents and causes of other ideas, which relate to them as objects of consciousness. They are, also, concurring and necessary causes of all ideas, which are inferred or deduced from

them as grounds of inference, or principles of judgment and conception, inasmuch as the attainment of those related ideas is impossible by other means.

Ideas are antecedents and causes of emotions, affections, desires, and acts of will. This is not the case with any other class of mental phenomena. Perceptions of external objects are not the more uniform effects of sensations, in the general experience of mankind, than emotions, affections, desires, and acts of will are of ideas. We cannot attain perceptions of material objects except by means of sensations; so we cannot attain emotions, affections, desires, and acts of will, except by means of ideas. The objects of emotions and other corresponding feelings, are only the objects of emotion and feeling—producing ideas, and indirectly and remotely of the feelings consequent on ideas.

All sensations have essential properties which do not belong to ideas, and all ideas have essential properties which do not belong to sensations. Some of these have been pointed out in the foregoing pages, and are too obvious to be mistaken. They may be easily ascertained, by comparing particular ideas and classes of ideas, with particular sensations and classes of sensations.

1. Sensations depend on organic conditions as their immediate antecedents and exciting causes; ideas do not depend on organic conditions of any kind.

2. Sensations are intensive; ideas have no measurable intensity.

3. Sensations are simple independent phenomena, having no intrinsic relation to sensation producing objects, except through the medium of ideas. Ideas relate directly, universally, and necessarily, to objects of thought.

4. Ideas occur only as consequents of other mental phenomena, which are objects of consciousness. They differ from sensations in the manner of their occurrence, by means of previous conscious exercises, as much as in their essential properties as objects of consciousness. Sensations occur only as the effects of particular conditions of bodily organs, most of which are capable of being easily observed, and traced to appropriate phys-

ical causes. This is not the case with ideas. They do not, in any case, stand in immediate succession to particular states of bodily organs, but in all cases, where organic conditions appear to excite them, they do it by means of intervening sensations. The last discoverable link in the chain of phenomena previous to ideas, is always an object of consciousness, such as sensations, previous ideas, emotions, &c.

Ideas may be considered as consisting of two or more simple ideas, and may be resolved into the same; but they cannot, in any case, be resolved into sensations; neither can sensations be resolved into ideas. Sensations are not the elements of thought, nor thoughts of sensations.

Where the sphere of sensation ends, that of ideas begins. The two are perfectly distinct and separate. The sphere of ideas is bounded on one hand, by that of sensations, from which it is clearly separated; and on the other, by that of emotions, affections, and desires, from which it is separated as clearly as from the sphere of sensations. The sphere of ideas, therefore, is intermediate in respect to the spheres of other mental exercises, having that of sensations below it, and taking its departure from the same, and having that of emotions, affections, and desires above it, and depending upon it.

The sphere of sensations is necessary to that of ideas, and the sphere of ideas to that of emotions, affections, and desires; each extending beyond and rising above the other, and depending on that immediately before and below it.

SECTION II.

THE GENERIC ORDERS OF IDEAS.

Ideas are numerous and diversified. They all possess several obvious and important properties in common with other classes of mental phenomena, and several others in common, only with other ideas. Some ideas are distinguished from others by peculiar properties. They are all capable

of being distinguished from each other as particular, and in some respects, peculiar objects of thought ; and of being distributed into different subordinate genera and species, according as they agree or differ in the possession of particular properties.

The generic orders of ideas are :

1. Judgments ;
2. Knowledge, or cognitions ;
3. Conceptions ;
4. Reminiscences.

1. Judgments.

All ideas which are inferred directly from previous mental exercises, whether sensations, ideas, emotions, affections, desires, or acts of will, considered with relation to the grounds from which they are inferred, may be denominated judgments. This definition comprehends primary acts of consciousness, equally with those ideas which are usually denominated judgments, both in the language of philosophers, and of mankind generally. Primary acts of consciousness do not differ essentially from ideas, which are generally denominated judgments. They are of the nature of inferences drawn from states of mind to which they relate as objects. Consciousness of sensations are inferences from sensations; consciousness of ideas, emotions, affections, desires, and acts of will, are inferences from the same.

This is obviously true in respect to exercises of consciousness, in all cases which require deliberation, and in which our conclusions are formed gradually, and is equally so in all cases.

Where particular acts of consciousness have been repeated so often as to become familiar, and require no particular attention in order to their exercise, and where the exercise of them is clearly seen to be natural and necessary in given circumstances, they cease to partake of the nature of judgments, and become cognitions, or parts of knowledge. Till that result is attained, they are simply judgments.

Those ideas to which the title of judgments is usually applied, consist of inferences or deductions from sensa-

tions, ideas, and other conscious mental exercises. We experience certain sensations of pain, and infer or judge that we are the subjects of particular diseases, of which we know these pains to be symptomatic ; we see a distant object and judge it to be a man, animal, or other object ; we also form various judgments respecting the magnitudes, forms, positions, and distances of visible objects. We judge persons to be good or evil, wise or unwise, rich or poor, handsome or homely, friendly or unfriendly, worthy of confidence or of distrust, &c.

2. Knowledge, or cognitions.

The distinction between judgments and knowledge is common to all nations and all men. It enters into the structure of all languages, and is recognized by every class of writers, from poets and novelists, to historians, philosophers, and divines.

The line of demarkation between these two classes of ideas, is no where distinctly drawn. It is difficult, perhaps impossible, to draw it with unerring precision, so as to include all knowledge in one sphere, and all judgments in another.

Many ideas have, from the earliest times, and among all nations, been distinguished from others, and called by titles equivalent to cognitions or knowledge ; and others have been separated, with equal unanimity, from the general mass, and called by titles equivalent to judgments ; while others still, have been distributed at different times, to each of these generic orders ; sometimes being considered as judgments and sometimes as cognitions.

Some ideas are called by common consent, judgments ; others, cognitions ; and others, either judgments or cognitions, according to the taste of the speaker or writer. Ideas are daily transferred from the class of judgments to that of cognitions, by means of which, the latter class is constantly recruited from the former. We are also constantly adding to our judgments, by new inferences and conclusions, and are, with equal constancy, transferring those judgments which we judge to be indubitably certain, from the order of judgments to that of cognitions or knowledge.

Ideas, or classes of ideas, which on their first occurrence are denominated judgments, in distinction from cognitions, come, in many cases, afterwards, to be denominated cognitions, in distinction from judgments.

Ideas which ultimately constitute parts of knowledge, on their first occurrence, belong to the sphere of judgments. We first form particular judgments, or judgments of a particular class, then repeat them, or form others successively like them and resting on the same grounds, and form other judgments concerning them as resting on valid grounds, and capable of being protracted and repeated indefinitely, or else as in some degree doubtful. If we judge them to rest on valid grounds, and to be capable of being protracted and repeated indefinitely, we immediately consider them as cognitions, not as judgments merely. If we are in any degree uncertain whether they rest on valid grounds, or are capable of being protracted or repeated indefinitely, we retain them in the class of judgments, and consider them as yet wanting the essential properties of cognitions.

Judgments and cognitions denote ideas, considered with respect to certain other phenomena which are objects of consciousness, from which they are inferred, deduced, or concluded. We judge men to be innocent or guilty, good or evil, &c., on certain grounds. Our knowledge of their innocence or guilt, sustains a similar relation to grounds of inference with judgments of a similar character. Judgments on their first occurrence, depend on evidence. When they become cognitions, they continue to possess the same properties, in this respect, as before. Knowledge depends as much on evidence as judgments. These two classes of ideas may differ in the amount of evidence on which they rest; but agree in resting on evidence. Cognitions rest on all the evidence which supported them as judgments, together with some additional items of evidence subsequently added thereto.

3. Conceptions.

Ideas, considered absolutely without respect to the grounds from which they are inferred, or without respect to any necessary grounds of inference, are denominated conceptions.

All our judgments and cognitions become conceptions, by our exercising them absolutely, without respect to the grounds on which they rest, or the evidence by which they are supported.

We conceive of the objects of our knowledge and judgments, at the same time that we exercise ideas of judgment and knowledge respecting them. Conceptions are constantly occurring as accompaniments of judgments and cognitions.

We know two objects to be equal or unequal, similar or dissimilar, and conceive of them as such. We know that a given object is a man, animal, bird, or mineral, and conceive of it as such. We judge that a man is wise or unwise, innocent or guilty, well or sick, and conceive of him as such, &c.

4. Reminiscences.

Ideas which occur in consequence of their having occurred before, and which relate directly to sensations and other conscious exercises, that ceased previous to their occurrence, are denominated reminiscences, or acts of memory. Ideas of the pains and pleasures of our past lives are of this description; also those of all the objects of past sensations and consciousness.

Reminiscences relate to objects considered as objects of judgment and cognition, not as objects of conception merely. They do not differ essentially from judgments and cognitions, except in relating to the conscious exercises from which they are derived, as past not present.

The other classes of ideas relate to objects as present objects of sensation, or of other conscious exercises; reminiscences relate to them as objects of sensations or other conscious exercises, which formerly existed and have ceased.

Ideas of objects and events as they appeared to us on former occasions, are perpetually recurring, and accompanying our present judgments and cognitions. They form an important part of our intellectual furniture, serve as the basis of important judgments and cognitions, and are the direct exciting causes of various emotions, affections, desires, and acts of will.

Reminiscences are not identical with judgments and cognitions ; but they serve as the basis of both. We judge and know, because we remember. For example : I know that I prosecuted certain studies and saw certain objects yesterday, because I remember having done so.

All ideas are of one or other of the foregoing classes. Some are judgments, some cognitions, some conceptions, and some reminiscences. These different classes of ideas have several essential generic properties, as mental phenomena and as ideas in common. They also each have some peculiar properties, by which they are distinguished from ideas of other generic orders. Judgments are, in some respects, different from cognitions, conceptions, and reminiscences. Cognitions, and each of the other generic orders of ideas, are also different from each of the co-ordinate genera of the same.

Considered without respect to their generic character as judgments, cognitions, conceptions, and reminiscences, ideas may be distributed into the following different orders, according to the nature of their objects, each of which comprehends both judgments, cognitions, conceptions, and reminiscences.

1. Ideas of mental phenomena ;
2. Ideas of the phenomena of matter ;
3. Ideas of minds, or spiritual objects ;
4. Ideas of material objects ;
5. Ideas of objects neither material nor spiritual ; but related in some way to such as are material, or spiritual, or both, and suggested by them. •

SECTION III.

PROPERTIES OF THE IDEAL FACULTY.

The susceptibility of ideas is, like that of sensations, one of the generic faculties of the mind. It is common to men and animals ; and is the uniform accompaniment of capacities of sensation. The latter would be useless with-

out the former. Sensibility without ideality, would be exercised in vain; and ideality without sensations to commence and facilitate its development, is, in this world, impossible.

The faculty of exercising or experiencing ideas, differs from that of sensations;

1. In the quality of its phenomena;
2. In not depending on bodily organs.

Sensations occur only by means of bodily organs, and can, in most cases, be traced distinctly to the organic impressions or conditions which produce them. This is not the case with ideas. They are not, in any instance, the effect of organic impressions and conditions, but of other mental phenomena, such as sensations, previous ideas, &c. A sensation may be exercised at the extremity of either of the fingers, or of all of them simultaneously, and lead to corresponding ideas. In this case, organic impressions or conditions are followed by sensations, and the sensations by ideas. Things which act on the organs of sensation communicate with the mind, and make their impressions on it by means of those organs. They have no other means of doing it. Sensations, however, act upon the mind directly. No organ can intervene between a sensation and the mind which experiences it. Sensations are phenomena of the mind itself. They therefore produce their effects on it directly, without the intervention of bodily organs.

The organs of sensation are so many points and channels of communication between mind and matter. The sphere of sensations is partly in the region of the mind and partly in that of material objects. The material causes of sensations are certain conditions of material organs.

Ideas of sensible objects are the immediate effects of sensations; and all other ideas attainable in this life, its remote effects, depending on sensation to such a degree, that without it, their attainment, according to the existing laws of our mental constitution, would be impossible.

If sensations are denominated organic mental phenomena, ideas may, with equal propriety, be denominated un-organic; since ideas do not depend on organic states of

any kind as their immediate cause, and only remotely on those which are the immediate antecedents and causes of sensation.

The doctrine of the immediate connection of ideas, with previous mental phenomena as their causes, to the exclusion of all organic conditions, derives additional support from the following considerations.

1. It accords with the idea, that the mind sustains an equally intimate connection with every part of the nervous system. We have as decisive evidence of the agency of mind in the extremities of the nervous system, as we have in the center. If it does not communicate directly with the smallest filaments of the nerves, it may not with their larger trunks, and if it does not communicate with any nerve directly, out of the different lobes of the brain, it may not communicate with the brain itself, which is generally considered the seat of the mind, merely because it is the center and basis of the nervous system, with which the mind communicates. The principal manifestations of the mind as connected with the body, are in sensations which occur by means of different organs, occupying different positions, but generally exterior to the brain. We therefore infer that the mind is not contained within the brain, but is actually present in all parts of the body where sensations and other mental phenomena occur. But if this is true, the faculty of ideas cannot be organic, for there are no organs out of the brain, that can be supposed to perform that office.

The hypothesis, that ideas occur by means of bodily organs, adapted to the purpose of producing them, is dependent on another previous hypothesis, that the mind is in direct communication only with the brain, and that it does not transcend the narrow limits of that organ. The first hypothesis is not only unproved, but is inconsistent with undoubted facts relating to the case; therefore, the second, and all the inferences depending on it, are unproved.

2. No organs in the brain or out of it, can possibly perform the office assigned by theorists, to the supposed organs for the exercise of ideas. On the supposition that

ideas are exercised by means of corporeal organs, and in consequence of certain conditions of the same, it follows that every individual must have several organs for the production of ideas, each producing ideas of one generic class, and no others; or else, that one, or at most, two organs of ideality, must sustain the whole of this immense responsibility, and serve as instrumental causes in the production of all possible ideas. There are evidently no organs for the production of ideas out of the brain. Whether the brain is supposed to contain a plurality of such organs, or to constitute one central organ of this description, is immaterial to the purposes of the present argument.

The brain, however, cannot serve as the organ of those ideas which originate in sensations, such as perceptions of sensible bodies, because it does not intervene between sensations and the mind. Sensations are affections of the mind, perfectly distinct from the organic conditions in which they originate. The mind, in consequence of these primary affections, forms ideas of the same, of sensible objects, and of itself, both as the subject of sensations and of ideas.

The organic condition which produces sensations, may extend to the brain, and may result in other different conditions of the nerves of sensation and of the brain in which they originate. These ulterior conditions, both of the nerves of sensation and of the brain, may be conceived of as producing other phenomena of mind corresponding to sensations, but specifically different from those which result from the previous organic conditions above referred to. Those phenomena, however they might differ from other classes of sensations, in quality and quantity, would still be of the same generic order. They would be effects resulting from previous organic conditions, and would, of course, correspond both in respect to intensity and quantity, to the conditions which produced them, or which concurred as necessary instrumental means of their production. They would, therefore, constitute another generic order of sensations, and would be, as all possible orders of sensations are, essentially different from ideas.

The hypothesis of the organic origin of ideas is still more inapplicable to ideas of other ideas, and of the mind itself as the subjective cause of sensations and ideas, than to perceptions. It requires us to believe that there is no direct connection between ideas of any kind ; that the idea of an idea is not the immediate effect and consequent of the former, but of an organic condition produced by the former, so that in consciousness the order of phenomena is the following ;

1. The sensations, ideas, &c., which are objects of consciousness ;

2. The organic conditions which they produce, so wonderfully diversified, as to correspond to the infinite variations by which ideas are distinguished from each other ;

3. The ideas of the previous ideas, corresponding to the organic impressions which produce them.

In the case of ideas of our minds as the subjective causes of sensations and ideas, the following phenomena occur in addition to those above specified :

4. Certain organic conditions produced by ideas of previous ideas ;

5. Ideas of our minds as subjective causes of sensations and ideas, corresponding to the organic conditions referred to under the former head.

Such is the system of materialism, necessarily involved in the hypothesis of the organic production of ideas. It is seldom carried out to its legitimate results as above stated. If it were, few of its present votaries would embrace it, still less propagate its anti-philosophical, anti-christian, and absurd dogmas.

The doctrine of the organic origin of ideas, is the basis of what, in its full development, is called the sensual school, or scheme of philosophy. Those who admit the principle, are bound in consistency to follow it to all the absurd and anti-christian results of sensualism.

One of the most plausible objections to the doctrine of the unorganic origin of ideas, is that which is based on the fact of mental fatigue, or fatigue from the continued exercise of the ideal faculties in comparing, judging, imagining, &c.

Every one is conscious of fatigue from continued exercises of this kind. That fatigue is a sensation, depending on organic conditions like other sensations. It shows, therefore, that the exercise of the ideal faculties operates, in some way, on the bodily organs, in producing the organic changes on which these sensations depend. The phenomenon which it indicates, is simply an effect produced on the body, which terminates in the sensations of fatigue, and which is produced directly or indirectly by the previous phenomenon of thinking, reasoning, imagining, &c.; whether directly or indirectly, or in what mode of direct or indirect action, is entirely a matter of inference. In ordinary sensations, the body acts on the mind; in fatigue from mental exercises, the mind acts on the body, and the state of body thus produced, acts on the mind like other organic conditions which produce sensations.

Fatigue from the continued exercises of reason and imagination, does not prove that these mental processes are performed by means of bodily organs, and that we have organs of thought as we have of sight, hearing, and the other senses; but only that the functions of judgment and imagination, &c., are so connected with those of animal and organic life, that the protracted exercise of the former, makes certain impressions on the organs of the latter; or, in other words, that the protracted exercises of imagination and reason, produce certain conditions of the organs of animal and organic life, which have the sensations of fatigue connected with them as their uniform effects.

The faculty of sensation communicates with external objects, and requires bodily organization for this purpose. The ideal faculty communicates with that of sensation and other mental faculties, as functions of the same mind. Its sphere, therefore, is altogether in the mind; and no bodily organization is necessary to be the channel of communication between one mental faculty and another. The phrenological doctrines of corporeal organs of ideality, are entirely gratuitous. If the mind is a spiritual substance, it can have no need of such organs. Sensations give it all the materials which it receives, or is capable of receiv-

ing from material objects. Its other exercises are purely spiritual.

The body is necessary as an instrument of sensations. Those states of the body which disturb the exercise of the senses, and in which the unconscious operations of the mind on the body, in the various processes of life, are interrupted or deranged, are in some cases attended with a derangement of the ideal faculty, or with the entire suspension or loss of it; proving that the exercises of the ideal faculty are conditional, and that they are not possible except in appropriate circumstances.

Certain states of the body are immediately appropriate to the exercise of the senses, or the faculty of sensation, and remotely to that of the ideal faculty. When the exercise of the senses is suspended, the ideal faculty slumbers with it, as in sleep, faintness, &c.

The ultimate fact is, that the ideal and sensative systems are intimately connected with each other, so that a disordered condition of the latter is accompanied with a similar state of the former. This does not prove that the ideal system is corporeal, but is fully accounted for by the assumption, that it is placed by God, during the present life, in constant fellowship with the subordinate systems of sensation and vital action, so as to be affected sympathetically by their condition.

The exercise of the ideal faculty is chiefly voluntary. The processes of judgment, imagination, and memory, are, in many cases, laborious, but become easy by exercise.

Ideas are, like sensations, phenomena of the mind. The susceptibility of ideas is like that of sensations, one of the common endowments of men and animals; but is given to man in a much higher degree than to animals. Mind may exist without exhibiting or exercising ideas, as well as without exhibiting or exercising sensations. But it is one of the prerogatives of human and animal minds, both to exercise sensations and ideas, and to fill up a large part of this life with the exercise of them.

The ideal faculty bears the same relation to ideas which the sensative faculty does to sensations. We conceive of the faculty of experiencing sensations as a single faculty

or susceptibility, by the exercise of which we obtain sensations of all the different orders ; and we may, with equal propriety, conceive of the faculty of exercising or attaining ideas as possessing a similar unity. We have one generic faculty of experiencing sensations of different orders, and by means of different organs ; and one generic faculty of exercising every possible variety of ideas, without the intervention of any organs, and by processes purely mental.

Judging, knowing, conceiving, and remembering, are exercises of the faculty of attaining ideas, as touch, taste, and smell, are of the faculty of experiencing sensations. They are exercises, however, of different orders, and imply the existence of different susceptibilities, or susceptibilities of different exercises.

These different susceptibilities are often referred to as different specific capacities, belonging to the generic order of faculties of ideas ; just as we conceive and speak of different specific capacities of sensation, as belonging to the generic order of the capacities of sensations.

Thus the capacity of judging, we call the faculty of judgments ; that of knowing, the faculty of knowledge ; that of conceiving and imagining, the faculty of conception and imagination ; and that of remembering, the faculty of memory.

The ideal faculty comprehends all the others, and is the genus of which they are the species. All are faculties of one mind.

CHAPTER II.

THE PROPERTIES AND ORDERS OF JUDGMENTS AND COGNITIONS.

SECTION I.

THE GENERIC PROPERTIES OF JUDGMENTS.

Judgments are a numerous and diversified class of ideas. The act by which we attain them is denominated judging. Judging and judgments are terms relating to the same phenomena, considered in different points of view. Thus, we feel, see, hear, taste, smell, and judge concerning these sensations and their objects. We observe our judgments and other conscious exercises, and judge concerning them. We attend to evidences of various kinds, and derived from various sources, and infer from them various judgments respecting ulterior facts which they establish or reveal.

We judge objects to exist or not to exist, and to possess certain properties or not to possess them. Whatever ideas we form of them as existing or not existing, and possessing certain properties or not possessing them, previous to our having attained a knowledge of the same, are judgments. All knowledge, therefore, originates in judgments. We must first have judged, in order to know. But all judgments do not terminate in knowledge. We often judge respecting objects and their properties, which we are never able fully to know.

Judgments, like sensations, depend on certain conditions. The conditions of sensations are appropriate organic impressions; those of judgments are appropriate previous mental exercises, which are objects of consciousness; such as sensations, ideas, &c. Without some previous mental exercise, which is an object of consciousness, we can form no judgment. Our first ideas relate to objects of consciousness, and are generally denominated ideas of con-

sciousness. From these, all our judgments, properly so called, are derived.

We are not capable of forming any judgment which is not directly or indirectly dependent on our ideas of consciousness, any more than we are capable of attaining sensations independent of organic impressions.

Ideas of consciousness, therefore, are the basis of judgments and of all those cognitions in which judgments terminate.

All judgments may be resolved into two elements, which are intimately connected, either of which does not constitute a judgment without the other;

1. The matter of judgments;
2. The grounds or reasons of them.
1. The matter of judgments.

The matter of judgments consists of conceptions. Thus, the ideas or conceptions that a given visible object is an animal or man; that the soul is not material and not mortal; that the sun will rise to-morrow and in future years; that particular men are innocent or guilty, wise or unwise, rich or poor, friendly or unfriendly, &c., exist in judgments, and are what we judge concerning certain objects. We judge a visible object to be a man or animal; we judge the soul to be not material, and not liable to absolute destruction; we judge that the sun will rise to-morrow, and in future years, &c.

Every variety of conceptions may serve as the matter of judgments. We conceive of certain objects as material, and judge them to be so, or not to be so; we conceive of them as real or fictitious, and judge them to be of either description; we conceive of them as possessing certain properties and relations, and judge respecting their possession of them, either affirmatively or negatively.

The sphere of judgment, therefore, is co-extensive with that of conception. All possible conceptions may serve as the matter of affirmative or negative judgments.

Conceptions often occur as inferences from other conscious exercises, having respect to objects considered as possible, desirable, or agreeable to some rule which holds in other cases, before they become judgments concerning

them, as real or unreal. These primary inferences are of the same nature as the ultimate judgments to which they lead, considered in relation to their matter. They consist of conceptions of the same objects, or in other words, of the same or similar conceptions.

Thus, I see a distant object and infer that it may be a man or animal, before I infer that it is actually such. I infer that particular men may be innocent or guilty, rich or poor, wise or unwise, before I infer or judge that they really are so.

Besides, we often judge certain objects of conception to be desirable, undesirable, or possible, considered with respect to certain objects of judgment or knowledge, at the same time that we consider them as having no subjective reality; or without considering or judging whether they are real or unreal.

2. The grounds or reasons of judgments.

It is characteristic of the conceptions which enter into judgments, and constitute the matter of them to be inferred from certain premises, and to be adopted or concluded on the ground of certain arguments or reasons.

An inference must have some antecedent from which it is inferred, and a conclusion some arguments or reasons on which it rests.

Thus, I judge a particular distant object to be a man or animal, on account of some resemblance which it bears to the same, as an object of sight. I judge a man to be innocent or guilty, rich or poor, wise or unwise, on account of some indications of innocence or guilt, wealth or poverty, wisdom or folly.

So I judge that a particular distant object of sight, may be a man or animal, on account of some things in its appearance favorable to such a conclusion, unaccompanied with equal evidence to the contrary. On similar grounds, I judge that men may, in particular cases, be innocent or guilty, rich or poor, wise or unwise, &c.

The immediate grounds or reasons of judgments are previous exercises, which are objects of consciousness, such as sensations, ideas, emotions, &c.; their remote grounds, the objects of ideas. The former are subjective

and the latter objective. Objective grounds of judgment become effective, only by means of the subjective ones which they are capable of producing.

The objective grounds of judgments are frequent matters of consideration and discussion, under the title of evidence.

Evidence is a relative term, and denotes objects and events, considered simply as the objective grounds of judgments. It is the objective rule of judgments, or the objective means by which judgments are produced, just as material objects are objective causes of sensations.

The capacity of appreciating evidence, is simply the capacity of judging. An incapacity to appreciate evidence in any case, is an incapacity to judge in that case.

As far as we have decisive evidence, and are capable of appreciating it, we can pursue our judgments and extend the field of our knowledge; no farther. Where evidence fails entirely, or is, in any degree, indecisive, judgment is limited in an equal degree. When we push our conclusions beyond what is required by evidence, they cease to be valid, and become conjectures, hypotheses, and errors.

Evidence is either direct or indirect.

Direct evidence tends directly to produce the judgment to which it sustains this relation, without any intervening judgments.

Indirect evidence tends to produce the judgments to which it sustains this relation, by means of other intermediate judgments. In every chain of consecutive reasoning, the premises and conclusions which are in immediate proximity, are connected in the relations of direct evidence and truths evidenced; whereas, remote premises are indirect evidences of remote conclusions, deduced from them by means of intermediate direct ones.

The same objects may serve as single and associated direct evidences of various judgments, which are more or less obvious, and as single and associated indirect evidences of various others, depending remotely on the same.

Single evidences may serve as the basis of a certain number of judgments, depending immediately on each of them alone. Considered together, different evidences give

rise to several additional direct judgments, which could not be deduced from either of them considered separately, and in this way become associated evidences of truth, which they do not reveal separately or unassociated.

That which does not serve as the basis of any judgment, is not of the character of evidence. It is as necessary to evidence to produce judgments in appropriate circumstances, as it is to sensible objects to produce sensations, or to exhibit sensation-producing phenomena. That which is incapable of being, in any way, an object and producing cause of sensations, is not a sensible object. So, also, that which is incapable of producing judgments is not an evidence.

Particular objects are evidences considered with respect to the judgments which they are capable of producing, and with respect to no others.

Some of the inferences to be deduced from evidence are obvious, and occur immediately to all. Persons have but to understand the objects and events which constitute the evidence, in order to draw the inferences, and can hardly avoid drawing them, and drawing them correctly.

Other inferences, which are equally legitimate, are not equally obvious, but require more protracted and vigorous attention, in order to their being drawn. Such escape the notice of superficial inquirers, and are often keenly disputed by them. They still, however, depend on evidence, and are capable of being proved to the satisfaction of the human mind, and of becoming objects of as much certainty as more obvious judgments. Least obvious judgments may be as certain as those which are most obvious but are less general. They are attained slowly and with labor, and only by the few; whereas, the most obvious judgments which arise from the consideration of evidence, are the property of the many.

There is a wonderful uniformity in the judgments of different persons, and of the same persons at different times, corresponding to the uniform nature of the human mind, and of the evidences by which human judgments are determined. There is also a manifest disconformity in the judgments of different persons, and in those of

the same persons at different times, corresponding to the more or less improved state, and the more or less protracted and vigorous exercise of their minds, and to the smaller or greater number of evidences made use of.

To neglect the consideration of evidence, is to neglect the essential conditions of judgment, to which that evidence is subservient. To consider evidence duly, is to lay ourselves under a necessity of judging according to the same.

Considered with relation to particular judgments, objective evidence may be distinguished as real or supposed, complete or incomplete.

(1.) Real evidence is that which sustains the judgments supposed to be deducible from it; and from which those judgments are capable of being legitimately, uniformly, and universally inferred.

(2.) Supposed evidence is that which is supposed to be a legitimate basis, from which to draw certain inferences when it is not. Many of the facts attested in courts of justice, and many of the arguments adduced by controversialists, are of this description.

(3.) Evidence is complete when it establishes the judgment based upon it as an absolute truth; or when it establishes all the parts of the judgment, and establishes them as absolute truths, in regard to which we cannot be mistaken.

(4.) Evidence is incomplete when it does not establish the judgments based on it, as absolute truths, but only as relative, or in other words, as more or less probable.

It may be incomplete, in some one article, in several articles, or in all.

For example: the evidence that a particular event will occur to-morrow, or at any other particular time, may be incomplete, in not showing that the event will occur at the time specified; or in not showing this conclusively; or it may be incomplete in not showing that the event referred to will occur at all; or that any event will occur.

So evidence that a particular event did occur at a particular time, may be incomplete, in not showing that the event occurred at the time specified; or in not showing this conclusively; or in not showing that the event in question ever occurred.

SECTION II.

THE GENERIC ORDERS OF JUDGMENTS.

Considered with relation to evidence, judgments are of two orders :

1. Correct ;
2. Erroneous.

1. Correct judgments.

Those judgments which are conformable to evidence, are correct. The conformity of judgments to evidence, is itself an object of judgment. We judge our judgments to be conformable to evidence or otherwise. Judgments are conformable to evidence, when they are what that evidence is adapted to make them, and neither more nor less. We know that they are of this character, when the evidence in question produces them uniformly in all circumstances, and when it does this in conformity with our modes of judging in analogous cases. We are still farther confirmed in this, when we discover our own judgments to bear the same relations to given evidences which the judgments of others do.

2. Erroneous judgments.

Those judgments which are not conformable to evidence, are erroneous. Judgments are not conformable to evidence, when they are not what evidence is adapted to make them. We know that they are not of this character, when the evidence in question does not produce them uniformly in all circumstances, and when it does not produce them in conformity with our established modes of judgment in analogous cases.

We are still farther confirmed in this, when we discover our own occasional judgments in question, not to bear the same relations to given evidences which the judgments of others generally do, who are equally well informed with ourselves.

Correct judgments are confirmed by their agreement with previous and later judgments, depending on similar grounds ; and incorrect judgments invalidated by their corresponding disagreements.

Our voluntary control over our judgments is similar to that which we exercise over our sensations, and is subject to similar restrictions. Both faculties are liable to abuse and perversion, but neither of them admits of being perverted only to a limited extent. There are sensations which we cannot but feel in circumstances appropriate to the experience of them, and judgments which we cannot but form.

In popular and judicial language, evidence is considered as capable of being measured by degrees, and persuasion, or belief which is founded on it, is considered as admitting of a corresponding measurement.

One, or a few degrees of evidence, are considered as not furnishing adequate grounds of inference, when several degrees would be sufficient for this purpose. Degrees, however, are not strictly predicable either of evidence or belief.

Evidence does not properly admit of being measured or estimated by degrees. It either establishes certain conclusions or it does not establish them. Those conclusions which it establishes, it perfectly establishes. Those which it does not establish, it does not establish; and they ought not, on such grounds, to be received as true, or to be adopted as judgments.

To infer from given evidence, judgments which they do not require and establish, is to judge incorrectly; or to form judgments which are not conformable to evidence.

Those supposed degrees of evidence in favor of particular judgments, which do not fully authorize and require the same, are falsely called evidence. They approximate towards the nature of evidence, in the same degrees in which they are supposed to be of the nature of it. When they become legitimate grounds of judgment, they become of the nature of evidence in respect to the judgments legitimately deduced from them, and not till then. All those judgments deduced from them which are not legitimate, are erroneous; that is, not according to evidence.

Evidence may be more or less obvious in respect to the judgments which may be legitimately deduced from it; but its relations to those judgments is, in all cases, the

same, and does not admit of being compared in respect to degrees. Perfect conviction does not vary in degree; and imperfect conviction is not conviction of any degree.

To be persuaded in any degree less than perfectly, is really to be not persuaded at all; and to believe in any degree less than confidently, is really not to believe at all.

Persons never speak of degrees of evidence or of persuasion, when they have certain convictions. Ideas which do not rest on satisfactory and decisive evidence, are the only class of judgments which we consider as capable of being measured by degrees.

We have ideas that certain events will take place to-morrow. Whether they will really take place or not, we have no means of determining with certainty. We judge that they are possible, perhaps probable, or more likely, so far as we have the means of judging, to occur than not to occur. Perhaps there is a strong probability, so far as our knowledge extends, that they will occur. We may see strong reasons to believe they will occur, and none to believe that they will not occur.

At the same time, we may know perfectly that our knowledge does not extend to all the causes, by the operation of which the occurrence of these events is to be determined. We, therefore, cannot judge that they will occur, or not. We can only judge that their occurrence is probable, so far as certain causes tending to produce them, and tending to prevent their production are concerned; no farther.

When we have no means of determining whether events will really occur or not, from an incapacity of investigating all the causes that operate in producing them, or promoting their production, we may still investigate the causes within the sphere of our knowledge, and ascertain whether, so far as these are concerned, the occurrence or non-occurrence of the events in question is probable.

In cases of this kind, we form certain judgments on the basis of certain evidences. Our inferences are such as the evidences are supposed to require and authorize; no more and no less. The evidences do not reveal the occurrence or non-occurrence of the event to which they

relate, considered absolutely, but its occurrence or non-occurrence, so far as particular causes are concerned, which come within the sphere of our knowledge, to the exclusion of others. What the evidence proves, it proves conclusively. What it leaves unproved, we are incapable of concluding with certainty, or making an object of legitimate judgments.

We have numerous ideas respecting objects and events, which are not legitimate judgments. Many of these are described as acts of persuasion and belief, when, if strictly examined, they will be found not to be conformable to evidence, and to be capable of being clearly distinguished from those ideas which have substantial grounds of inference.

We distinguish this class of ideas from others, as less certain, or in some degree uncertain ; and consider them as more or less certain or uncertain, according as the ideas from which they are deduced, approximate more or less to the character of complete evidence.

In all cases in which the evidence of particular facts is in any degree incomplete, we are incapable of forming legitimate judgments that they have occurred. They may have occurred, but their occurrence, in these cases, cannot be objects of legitimate judgments.

We may judge that events have occurred without complete evidence of the facts ; and these judgments may agree with the facts, but do not agree with the evidence, which by the supposition is not complete, and are, therefore, not legitimate.

When the evidence of facts is incomplete, we cannot form legitimate judgments respecting them. We may believe or not believe them, but have no proper and adequate warrant for belief or unbelief. We ought to judge them to be true, only as far as we have evidence in their favor, and to be more or less doubtful as far as any items are wanting to render the mass of evidence complete.

A legitimate judgment, that any truth is probable, of which we have no certain evidence, implies the following conditions :

1. A knowledge of an imperfect mass of evidence relating to the same, which is, on the whole, favorable to the supposition in question.

2. A knowledge of the fact, that the evidence in question is imperfect, and that some other items must be added to it, to make it decisive of the fact which it is considered as rendering probable.

3. An impartial estimate of the evidence possessed, and an inference respecting the fact in question from this evidence, considered without respect to the supplement wanting to render it complete.

All judgments of this kind are liable to be erroneous in cases where they are perfectly legitimate. A given mass of imperfect evidence may be in favor of one conclusion, when the same evidence, considered in connection with the other parts necessary to render it complete, would require an opposite one.

Legitimate judgments, founded on incomplete evidence, are often reversed by later judgments, deduced from the same evidences considered in connection with others when rendered complete.

Where the evidence which sustains our judgments, is in any degree incomplete, we cannot form legitimate absolute judgments. We may form absolute judgments on the ground of incomplete evidence, and they may happen to be in accordance with facts, and may be confirmed and rendered legitimate and certain, whenever the evidence on which they rest is completed. But as long as the evidence on which they rest is incomplete, they are not legitimate judgments.

Incomplete evidence cannot establish the conclusions to which it sustains this relation as absolute truths.

The same evidence that is incomplete, considered in respect to one conclusion, may be complete considered with respect to others.

Thus a particular mass of evidence may be incomplete, considered with respect to the conclusion, that a particular man is guilty of any particular crime; and yet may be complete, considered with respect to the conclusion, that some man committed the crime in question; or that the partic-

ular man in question did something, or exercised some agency in the case.

Complete evidence may be redundant. So may particular parts of that which is incomplete. Redundant evidence, however, adds nothing to the legitimacy of our judgments or conclusions.

Truths in geometry are no more certain, on account of their being demonstrated by evidence derived from different sources, than as if they were capable of single demonstrations.

The same is true respecting all judgments of what is, what has been, and what is to be. A past or future event, which is indicated by a single mass of complete evidence, is as certain as one which is indicated with equal clearness, by two, five, or ten such masses of evidence. There is no difference between necessary and contingent truths in this respect. Complete evidence of contingent truths, is as decisive and satisfactory in regard to them, as complete evidence of necessary truths is in regard to them.

Belief and faith are appropriate titles of legitimate and valid judgments; and believing is synonomous with judging.

We believe on the ground of evidence, and our faith or belief is legitimate or illegitimate, according as it is conformable to the evidence on which it rests, or not. All that has been said of judgments may be transferred to faith, which is but another name, applied to denote the same phenomena.

SECTION III.

THE GENERIC PROPERTIES OF KNOWLEDGE.

Knowledge comprehends a large and important class of ideas, which, considered individually, may be denominated cognitions. All knowledge may be resolved into single cognitions. Cognitions cannot be resolved into simpler elements, without losing their generic properties as a dis-

tinct class of ideas. They are analogous to judgments in which they originate, and may be considered like them, as consisting of two essential elements :

1. The matter of cognitions ;
2. The grounds or reasons of them.

1. The matter of cognitions.

The matter of cognitions, like that of judgments, consists of conceptions. Considered with respect to this element, cognitions do not differ at all from simple conceptions relating to the same objects ; or from judgments into which those conceptions enter.

The conceptions which constitute the matter of cognitions, are the same as those which exist independently as conceptions simply, and which constitute the matter of judgments.

2. The grounds or conditions of knowledge.

The peculiar characteristic of cognitions, is to be found in the relations of the conceptions which compose them, to other elements from which they are deduced.

The subjective grounds or conditions of cognitions are similar to those of judgments, and like them, consist of previous mental exercises, which are objects of consciousness. We can have no knowledge which does not depend on grounds of this description. Consciousness is the immediate and essential condition of all knowledge, as it is of all judgments.

The same conscious exercises which serve as the conditions of successive judgments, or as the grounds of inference from which successive judgments are deduced, serve also as the conditions and grounds of knowledge.

The objective grounds or conditions of knowledge, bear the same relation to those of judgment, which subjective ones do. As all the objective grounds of judgment may be comprehended under the title of evidence, the same is true of the objective grounds of knowledge. Knowledge depends on evidence, equally with judgments ; and it depends on nothing else.

The relation of evidence to the knowledge of which it is an essential condition, and which depends upon it, is more or less remote, having those conscious exercises

which are the subjective grounds of knowledge, as a bond of union between them. Objective grounds of knowledge produce those conscious exercises, which are the subjective grounds of it, and these produce knowledge. Knowledge depends immediately on certain exercises, which are objects of consciousness, and these exercises on evidence.

The specific difference between legitimate judgments and cognitions, is not very obvious or very great. Considered with relation to their objects, there is no difference. Legitimate judgments bear the same relation to their objects which cognitions do. To judge a guilty man to be guilty, and to know him to be guilty, considered with relation to the objects of this judgment and knowledge, are the same thing.

To judge two objects to be equal or unequal, similar or dissimilar, &c., and to know them to be so, is to judge in one case precisely the same thing that we know in another. So of all legitimate judgments and corresponding cognitions.

The same is true of all judgments which are not legitimate, from depending on defective evidence, but which are capable of being made legitimate. We often infer the existence of objects and their properties, from insufficient grounds. Sometimes these inferences prove correct, and sometimes incorrect.

Illegitimate judgments, the evidence of which is capable of being rendered complete, sustain the same relations to their objects which legitimate ones and cognitions do.

In such cases, we judge the same things or form the same conclusions, that we should form, if the defective evidence, from which illegitimate conclusions are drawn, was completed. Such judgments, however, are widely different from cognitions. We cannot, with propriety, be considered as knowing things which are only the objects of illegitimate judgments.

The difference between legitimate judgments and corresponding cognitions, is less obvious than that between illegitimate ones, the evidence of which is capable of be-

ing completed, and cognitions corresponding to them ; still there is some perceptible diversity even here.

The distinction which has been made in all ages, and by all nations, between these two orders of ideas, is not without a cause in the properties of the ideas thus distinguished.

We first judge, then repeat our judgments on the same grounds, and in many cases, on different and additional grounds, associating with them, on subsequent occasions, ideas of their having been previously exercised ; and finally, in consequence of their repeated exercise, and of the increased facility with which we attain them, distinguish the ideas thus attained from simple judgments, by the title of knowledge or cognitions.

If I could have the idea of my existence, without perceiving its relation to evidence, it would not be either a judgment or cognition. If I merely inferred it from evidence, without any power of forming accompanying judgments on the validity of that evidence, and without power to repeat and protract it indefinitely with increased facility, it would still be only a judgment. But when I have inferred it from evidence, and am able to repeat the inference at pleasure, and find it always consistent with itself, and with other acts of which I am conscious, I naturally regard the idea thus obtained, as of the peculiar character which I have found it to possess, and distinguish it from others which do not possess this character, by the title of knowledge.

The peculiar properties of cognitions, therefore, are, that they originate in legitimate judgments, and consist of such judgments made easy by repetition. We form legitimate judgments and convert them into cognitions, simply by repetition and accompanying judgments respecting them.

All legitimate judgments, that we have formed in one or more instances, and are able to repeat indefinitely, either on the original grounds or others, may be referred to the order of cognitions. No others are of this class.

Knowledge may be considered as possessing quality and quantity.

1. The quality of knowledge.

Knowledge is of a superior or inferior quality ; (1.) as it is adapted to be more or less useful ; (2.) as it is capable of being more or less easily acquired ; (3.) as it is capable of being excited with greater or less facility.

(1.) Cognitions are more or less useful.

All cognitions are capable of subserving, in different ways, the happiness and usefulness of the persons who exercise them. All, however, are not equally useful ; far from it. Some afford more happiness, and are of more service to the subjects of them, than others ; and some contribute more than others, to render the subjects of them useful, in particular instances, and to particular individuals, or generally, and to society at large.

It is sometimes convenient to compare different branches and items of knowledge, in respect to their general or occasional utility, and to estimate them as superior or inferior, either absolutely and universally, or relatively and in particular cases, according as they are of greater or less necessity and utility.

(2.) Cognitions are acquired with more or less facility.

Cognitions differ widely from each other, in respect to the facility or difficulty of their acquisition. Some are capable of being attained with perfect ease. We cannot avoid attaining them. The acquisition of others is in some degree difficult, and cannot be made without proportionable effort, directed to that end. That of others is still more difficult, requiring proportionably greater effort in their pursuit ; and so on till we arrive at those, the acquisition of which requires faculties of the highest order, exerted with their utmost vigor, during the longest periods.

Considered with respect to the facility or difficulty of their acquisition, cognitions are of inferior or superior orders, those which are acquired with the greatest difficulty, being of the highest ; those which are acquired with the greatest ease, the lowest ; and those which occupy intermediate positions between these two extremes, being of intermediate orders. Our primary cognitions, having relation to matter and mind, space and time, number and quantity, morality and religion, &c., and others which are attained

with little or no effort, belong to that portion of human knowledge which is of the lower orders. Cognitions having relation to these and other objects, which cannot be attained without intense and long continued effort, belong to that portion of knowledge which is of the higher orders.

(3.) Cognitions are excited with more or less facility.

Cognitions are subject to remissions, similar to those which take place in respect to sensations. I know that I exist. But this idea presently ceases, and gives place to others. I know that two and two equal four. That idea is also transient. But in both these cases, and in all other cases of knowledge, the ideas which constitute actual knowledge, are capable of being excited in circumstances in which, but for our having attained the knowledge in question, they would not occur.

Actual cognitions having once occurred, their recurrence is easily effected ever after, as long as they continue to retain the character of cognitions.

The amount of human knowledge possessed at any one time, is far greater than the amount of ideas then existing or in exercise. It embraces the cognitions then in exercise, added to those which we have formerly had, and are able to excite again with more or less facility.

We may have had knowledge that we have lost. Much that we knew in former years, we have no knowledge of in later years; and much that we know now, we shall inevitably cease to know in years to come. Cognitions continue to constitute parts of our knowledge only while we are able to excite them with more or less facility.

Thus we continue to understand different arts, as long as we are capable of performing, with facility, the processes which they involve; we continue to understand different sciences as long as we are able readily to demonstrate their principles and rules, and to apply the same to their appropriate purposes.

When we have lost our ability to demonstrate readily the principles and rules of any science, which we formerly understood, we have so far lost the knowledge of it.

When we can readily demonstrate and apply the obvious principles and rules of any science, but not those which

are in some degree difficult, our knowledge of that science is imperfect and superficial.

Knowledge is perfect or imperfect.

Perfect knowledge denotes an acquired capacity readily to attain cognitions relating to all the parts of the object or science known.

Imperfect knowledge denotes an acquired capacity readily to attain cognitions relating only to some of the parts of the objects and sciences concerned. A person who has studied all the rules and problems of arithmetic, and who can readily demonstrate the correctness of those rules, and apply them to the solution of problems, understands arithmetic perfectly. One who cannot readily demonstrate the correctness of all the rules of arithmetic, or apply them to the solution of all the problems to which they are applicable, understands arithmetic imperfectly, or has an imperfect knowledge of it. So of other sciences.

The perfection of knowledge embraces two elements.

(1.) An acquired capacity of attaining certain cognitions, in certain circumstances.

(2.) A capacity of attaining them more or less readily.

Knowledge is more or less perfect, according to the number of cognitions which it embraces, and the degree of readiness and facility with which we can attain them.

The degree of facility and readiness with which cognitions are attained being the same, persons have more or less perfect knowledge of objects, according to the number and quality of the cognitions they are capable of attaining, respecting them.

The number and quality of cognitions being the same, knowledge is more or less perfect, according to the facility or readiness with which those cognitions are capable of being excited.

Human knowledge is never absolutely perfect, considered either with respect to the number of cognitions which are possible, or in respect to the degrees of facility and readiness with which they are capable of being attained. Perfect knowledge is peculiar to God.

We are not capable of attaining all possible cognitions respecting any object of knowledge, however diminutive or

simple; still less respecting any considerable number of such objects. Neither are we capable of acquiring such facility in the acquisition of cognitions which have become elements of our knowledge, but that greater is possible.

The most perfect knowledge attainable in this world, is only a slight approximation towards that which is absolutely perfect, and which belongs to the infinite mind of Jehovah.

2. The quantity of knowledge.

The quantity of knowledge is its relation to any given standard as more or less. A man has more knowledge than a child; a learned man more than an unlearned one; and a wise man more than one who is not wise. Men differ in respect to the amount of their knowledge, some having more and others less; some more of one quality, and others more of different qualities; and all having more or less of several qualities at different periods of life.

Some have a large amount of knowledge of the lower orders in respect to quality, and little or none of the higher; others have more of the higher orders and less of the lower; and others still have large amounts of knowledge, both of the higher and lower orders.

In the lowest state of mental improvement, persons have but little knowledge of any kind, and that chiefly, if not entirely, of the lowest orders. This is the state of infants and savages. They know but little, and that little is of the most obvious nature.

The differences between different persons and classes of persons, considered in respect to the amount and quality of their knowledge, are objects of general notoriety and attention. We can hardly avoid comparing different persons, both of our general and particular acquaintance, in these respects, and of forming corresponding judgments and opinions concerning them.

No considerable number of judgments, and no considerable amount of knowledge or number of cognitions are ever in actual exercise at any one time by human minds.

Ideas of all classes are transient and successive. The occurrence and continuance of some, is incompatible with the simultaneous occurrence and continuance of others. While we are occupied with one or several ideas, others do not occur; and when others, in any considerable numbers or with any considerable distinctness occur, those previously in exercise cease. This is equally the case with cognitions and with mental phenomena, which are objects of consciousness of other generic orders. Sensations, emotions, &c., may be to some extent simultaneous; but they can be so only to a very limited extent. There cannot be an indefinite accumulation of simultaneous mental phenomena. A few may co-exist, as sensations of different orders, or sensations and ideas of sensible objects, ideas and emotions, &c., and different ideas.

The doctrine that the mind is susceptible only of a single phenomenon at a time, and that no two mental phenomena are strictly contemporaneous, contradicts the clearest evidence of consciousness and observation, and is manifestly erroneous.

It is obvious, however, that our capacities of simultaneous mental phenomena, are restricted within narrow limits, which we cannot transcend. The usual phenomena of a day, may be developed in a much shorter period, perhaps in an hour; and those of an hour in a proportionably shorter period. We may be the subjects of more mental phenomena of the different orders in some periods, than in others of equal lengths; and may have more ideas, and those of higher orders in some hours, than in some days, and in some days, than in some weeks. But we cannot crowd the numerous cognitions of a life into an hour, or the judgments of a life into a day. We have the power of attaining more judgments in a year than in a day; and so of cognitions, and all other mental exercises.

We have the power of retaining our existing ideas to some extent, while acquiring new ones, and of making the former serviceable in the acquisition of the latter. But the extent to which we can do this is very limited. Existing ideas may receive some additional ideas as coter-
temp-

raries, and continue with them; but continual and indefinite accessions as contemporaries are impossible. The continual acquisition of new ideas, results necessarily in the continual loss of old ones. In other words, ideas of every class are successive, and are so related to the mind and to each other, that they cannot co-exist to an indefinite amount, or in any considerable numbers.

Our simultaneous cognitions are few. But those which we have exercised on different successive occasions, and which we are capable of exercising with more or less facility, as often as we may have occasion to do so, may be indefinitely multiplied.

In proportion as mankind are more improved, their knowledge is increased in quantity, and improved in quality. They know more, and their knowledge is of higher orders.

Those who enjoy the advantages of common school and academic education, live in civilized and enlightened societies, and are more or less habituated to reading and thinking, stand on an elevation high above infants and savages in this respect.

Those who are most enlightened, and who have prosecuted the investigation of truth to the farthest limit, and in the highest departments of information, occupy an elevation in respect to the quality and amount of their knowledge, as much above that of the mass of civilized men, as the mass of civilized men do above that of infants and savages.

SECTION IV.

THE SPHERE OF KNOWLEDGE.

Capacities and objects of knowledge are relative terms. Things are not objects of knowledge, except to beings who have capacities of knowing them.

All things which God is capable of knowing, are to him objects of knowledge; all things which men are capable

of knowing, are to them objects of knowledge ; and all things which animals and insects are capable of knowing, are objects of animal and insect knowledge.

Different beings have different spheres of knowledge, each of which centers in the being to which it belongs.

The sphere of the Divine knowledge embraces that of all created beings, and extends indefinitely beyond them all. God knows all that can be known by created beings of all orders, and indefinitely more than they can ever learn ; or than they are capable of knowing.

The sphere of human knowledge is much more extended than that of the most intelligent animals or insects, but it does not embrace all the items of knowledge which are attainable by the animal and insect tribes. Animals and insects are capable of many cognitions which are not attainable by man. But the sphere of knowledge assigned to any one of the animal or insect tribes, or that of all together, is far more limited than the sphere of human knowledge.

Human knowledge is progressive.

In early infancy our ideas are few and simple. Those of ourselves and others, however, as feeling, thinking, and acting beings, and of material and resisting objects, together with those of space and time, are among the earliest that we attain, and of which we are conscious. As we advance in years and experience, we discover new properties in the objects of our previous knowledge, and also new objects of knowledge. These discoveries are capable of being prosecuted indefinitely. Those who prosecute them farthest, are the most learned ; and those whose prosecution of them is most limited, are most ignorant.

Ideas lead to emotions, ideas and emotions co-existing or existing in immediate succession, to other ideas, and by means of other ideas, to other emotions and affections, and so on.

The attainment of knowledge is chiefly voluntary.

Existing ideas excite emotions of some kind, either on account of the peculiar nature of their objects, or on account of some interesting relations which they are supposed to possess. In consequence of these emotions, they

are retained in exercise till they produce other ideas, and they, till they produce others still; and so on.

We prosecute particular studies and observations in consequence of choices and purposes, having reference to the same; and each hour's application is the effect of contemporaneous volitions.

Choices, purposes, and volitions, have as extensive, obvious, and important an agency in the acquisition of knowledge, as in any class of human pursuits.

The spheres of knowledge, considered with respect to time, are the past, present, and future; with respect to space, this world, the solar system, the visible creation generally, and the invisible world. Of the beings, actions, and events, which belong to time past, we know but little. Our own observations and experience conduct us back only a few years. Sacred and secular history carry us considerably farther back. But even they fail us after a few thousand years, and of the periods through which they extend, they give us very slight and imperfect notices. We can know but little of the beings and events which belong to this world, and which have preceded us in the drama of time. Still less do we know of the past history of other worlds, and of all the beings and events of innumerable past ages.

The sphere of our present knowledge, shifting with each moment, is still more limited than that of the unfathomable past. It is limited to our consciousness, the material objects immediately around us, the spiritual objects around us, with which we are in communion by bodies or other means, and ideal objects. The present is the smallest appreciable portion of time, and its sphere of knowledge, to man, is proportionably limited.

Of the future, we have the means of knowing something. It opens before us a never-ending line of existences, and never-ending series of actions and events. What is to be, we learn entirely from what is and what has been. God is, and is to be forever. God has caused what has been and what is, and may be expected to act on the same principles which he has heretofore acted upon, in causing what is to be.

Our knowledge of this world comprehends several sciences, such as geography, chemistry, natural and civil history, embracing politics, ethics, religion, &c.

All that we know of other parts of the visible universe, is comprehended in astronomy. Of the immeasurable regions of space, the objects of which are too remote to be visible, we know nothing.

The sphere of our knowledge is not coincident with that of our thoughts or cognitions at any one time. All actual cognitions are within the sphere of our knowledge, but not necessarily on its extreme limits. Judgments and conceptions may transcend the sphere of our knowledge. We often judge and imagine when we do not know.

In thinking of the objects of our knowledge, we form different ideas of them, and those more or less specific and complete, according to our habits of thought, the purposes we have in view, and other circumstances. Thus, we think of a particular man at any one time as having a particular form and complexion, at another time, as having a particular disposition, at another, as engaged in particular pursuits; at one time, as mortal, at another, as immortal, at another, as religious, &c.

We cannot think of all the qualities and relations of the most simple objects at one and the same time. Our ideas of the known qualities of objects, are to a great extent successive.

Persons most unlike, in respect to the extent of their knowledge on particular subjects, and in relation to particular objects of thought, may, in particular circumstances, have the same ideas of those objects. Thus the most illiterate and the most profound chemists and philosophers may, in given circumstances, form the same ideas of a piece of gold, or any other natural body.

In thinking of particular objects we form ideas of them, having reference to one or more of their properties and relations, to the exclusion of others, according to the nature of the series to which our thoughts belong, and the objects we have in view. In this way, our ideas of the same objects may be indefinitely varied, without being contradictory, and the trains of thought which they compose, be indefinitely diversified.

Considered with reference to other mental exercises, the sphere of knowledge is within that of ideas. We can have no knowledge without ideas, because cognitions are a class of ideas.

Considered with reference to its subjective conditions, the sphere of knowledge depends entirely on those mental phenomena which are objects of consciousness, of which, in the case of man and animals, sensations take the lead. Human and animal knowledge originates in human and animal consciousness; and the Divine knowledge in the Divine consciousness.

Considered with reference to its objective conditions, every sphere of knowledge must be restricted to objects of conscious exercises, or the exciting causes of conscious exercises in the mind to which it belongs.

Neither God, nor man, nor animals, or insects, can have the sphere of their knowledge extended beyond the objects of their respective conscious exercises, and such other objects as may be inferred immediately or remotely, directly or indirectly therefrom.

In the Divine mind, the spheres of actual and possible knowledge are the same. All knowledge that is possible to God, is in actual exercise by him.

In human and animal minds, these spheres are widely different; and those of actual, far less extended than those of possible knowledge. Men and animals do not, in any instance, know all that they are capable of knowing. The sphere of man's actual knowledge embraces but a small fraction of that which is possible. It is capable of indefinite extension, but is contained within exceedingly narrow limits on every hand.

The wisest and most learned know but little of what the human mind is capable of knowing, and the unwise and ignorant know incomparably less than they.

The sphere of man's actual knowledge is capable of being indefinitely extended; but can never exceed that of possible knowledge. The means of its extension are observation and reasoning. The more extensively and accurately we observe and reason, and the farther we pursue

our observations and reasonings, the more we learn. Observation is first, then reasoning, and lastly, conclusions, which, when repeated and tested till we attain a perfect conviction of their correctness, and a capacity of repeating them indefinitely, terminate in knowledge or cognitions.

CHAPTER III.

CONCEPTIONS, IMAGINATIONS, AND REMINISCENCES.

SECTION I.

THE GENERIC PROPERTIES OF CONCEPTIONS AND IMAGINATIONS.

Conceptions denote ideas, considered without respect to the grounds from which they are deduced; as the conceptions of men, animals, insects, minerals.

The conceptions of men or other objects before our eyes as objects of sight, are judgments depending on vision. Those of men or other objects not before us as present objects of sight, are conceptions, not legitimate judgments. The same is true of conceptions of objects, as possessing any other properties. They may occur as judgments or as conceptions merely, according as they depend on evidence or not.

Conceptions may be considered as consisting of three orders:

1. Those which constitute the matter of legitimate judgments, cognitions, and reminiscences;
2. Those which constitute the matter of erroneous judgments;
3. Those which exist absolutely as conceptions.

Legitimate judgments and cognitions depend on evidence from which they are inferred. They are the effects of evidence, and can be only what the evidence on which they depend makes them.

Erroneous judgments are not conformable to the evidence on which they are supposed to depend; that is, they embrace more or less, or something different from what the grounds from which they are inferred warrant.

The element or elements by which erroneous judgments differ from what may be legitimately deduced from their supposed premises, are conceptions which the premises do not authorize, and which are really derived from some

other source. This derivation is usually by association. Those elements of a given erroneous judgment, which are derived by legitimate inferences from given premises, constitute one part of it, and those which are united with it by association, another.

Those conceptions which do not consist of erroneous judgments, and which we regard at the time as conceptions merely, are generally denominated imaginations; and the act of producing or exercising them, is called imagining. These terms are often applied to denote all classes of ideas, considered without respect to grounds from which they are deduced, whether true or false. The faculty of conceiving of the various objects of knowledge and opinion, considered without respect to the character of its exercises as true or false, is sometimes denominated theceptive faculty; and such conceptions are called imaginations.

In its most restricted sense, imagination denotes ideas which are known at the time not to correspond to real objects, or which may be known to be of this character, to the exclusion of others.

The essential conditions of absolute conceptions or imaginations, are previous ideas, which may be traced, ultimately, to legitimate judgments; and proximately, to judgments of every kind and cognitions.

We first judge correctly, or infer from certain grounds, the truths which they are adapted to reveal. We then prosecute the exercise of judgment, by forming some correct and some erroneous judgments, and distinguish many of the former from these, under the title of knowledge or cognitions. To these we add conceptions, which we know at the time not to be conformable to evidence; and which we distinguish from all other ideas, by the title of imaginations.

Our primitive judgments must be conformable to the evidence which produces them, and on which they depend; because, till we have first obtained legitimate judgments, we can have no elements to associate with them and render them illegitimate.

In forming or inferring them we cannot be subject to any bias, for there can be nothing in those circumstances to create a bias.

After our first judgments are formed, subsequent ones are liable to be erroneous, by the association of foreign elements, derived from different sources.

Every possible imagination is derived, in some way, from previous ideas.

We judge an object to be present and imagine it to be absent ; we judge it to be in one place and imagine it to be in another ; we judge it to possess certain qualities and imagine it to possess others. In all these cases imaginations are connected with judgments, as their antecedents and exciting causes. If we had not first judged, we should not subsequently have imagined.

All the objects of imagination are similar to those of previous judgment and cognition. Visible and tangible objects are first objects of perception, then of imagination.

If we had never become acquainted with color by sight, we never could have imagined it ; if we had never become acquainted with sound by hearing, we never could have imagined it ; if we had never become acquainted with visible and tangible bodies, considered as visible and tangible, we never could have imagined them.

Hence it is impossible to imagine a sensation different in quality from any which we have experienced ; or a being which is not material or spiritual. The sphere of imagination, therefore, is so far limited to that of knowledge, that all imaginations must be derived, by association, from judgments, cognitions, and reminiscences. We may form the elements derived from these sources, into various compounds. But we can obtain no other elements for that purpose.

All imaginations which we do not recognize at the time, as such, belong to the class of erroneous judgments or opinions, and are generally called by these names.

Those which we recognize at the time as not depending on evidence, and not conformable to it, are generally denominated imaginations, and carefully distinguished from legitimate judgments and cognitions.

We speak of judging some things, knowing others, and imagining others; but never confound our known imaginations with judgments and cognitions.

Novels, and poems of every description, are generally denominated works of imagination. They consist of narrative or dramatic compositions, many of which do not describe objects and events as they have appeared, by a careful deduction from evidences; but in attitudes and colors, and with properties and relations, more or less imaginary.

Persons are imagined of different characters, and moving in different spheres of public and private life. Different circumstances and events are imagined and described in particular orders of succession. Almost every object, event, and action, are in some of their features imaginary; and many are so in all.

The most pure works of imagination, however, are works of judgment and knowledge too. Judgment acts as the guide of imagination, in every part of the narrative or dialogue, the novel or poem.

All the parts of the most fictitious character were objects of judgment, and many of them considered by themselves, objects of accurate knowledge to the writer. In selecting, associating, and modifying them, he was guided by judgments respecting their qualities as effects of certain causes, and means to certain ends.

It is the office of the biographer and historian, to describe persons and events as they have actually existed. It is that of the novelist, to describe them as they may be supposed to have existed. The former is restricted to what has been and is capable of being ascertained as true, the latter to what may be supposed to have been, whether it can be demonstrated in the particular cases where it is assumed or not. Both require the exercise of judgment, and are developed only by means of this faculty. In the former, we infer what actually did occur from certain premises; in the latter, we infer what may, or might have occurred, from certain other and different premises.

The biographer and historian infer, from certain facts, certain judgments respecting particular individuals, and

several important transactions in which they were concerned. From certain other facts of a more general nature, and obtained from a great variety of sources, the novelist draws his inferences respecting what may or might have been, and expresses them in language similar to what he would use if he had inferred them as realities, rather than as possibilities or fictions. The historian has his facts to reason from, and his rules of judgment from which he deduces one set of conclusions. The novelist has his facts and his similar rules of judgment, from which he deduces another set of conclusions. The former concludes by reasoning, what was, in conformity with certain evidences; and the latter concludes by reasoning, what may or might have been in certain conditions, agreeably to general and particular principles of human nature.

Imaginations and legitimate judgments often co-exist as parts of the same complex state of mind, and mingle imperceptibly in successive trains of thought. We judge and imagine, and judge correctly and incorrectly in thousands of instances daily.

Some of our judgments and imaginations continue only for an instant. Others continue during longer or shorter periods of perceptible length. Some are never repeated, and others are repeated more or less frequently.

Judgments and cognitions, which depend directly on sensations, are generally more or less protracted, and more or less frequently repeated. While we look at sensible objects, we naturally protract our perceptions of them as objects of sight. As often as we look at such objects, we repeat our perceptions of them.

Imaginations which depend on uniform causes, occur and are repeated, according to the same laws, as perceptions. When the cause operates, the imagination occurs, when it ceases to operate, the imagination ceases, and when it is renewed, the imagination is renewed.

Sensible objects, which are habitually present, produce habitual judgments and cognitions; and those which are occasionally present, occasional ones.

Habitual judgments and imaginations are formed with much greater facility than others; and on proportionably

less obvious grounds. The rapidity and completeness with which we form them, are among the wonders of mental science.

When sensations are in exercise, they compel us to form ideas more or less conformable to them. With sensations of sight, we are compelled to form corresponding ideas of visible objects; with those of touch, to form corresponding ideas of tangible objects; and so of all other sensations. On the same ground upon which we are compelled to form ideas, we are compelled to entertain them more or less permanently; and to repeat them more or less frequently.

With particular grounds of judgment we must judge, and with elements of imagination we must imagine. The extent to which we prosecute our judgments, and the time during which we protract them, depend more or less on our volitions; but not to form or protract them at all, is in many cases impossible. The same is true of imaginations.

The exercise of one class of ideas, prevents or impedes that of others at the same time. Judgments prevent or impede the exercise of imaginations, and imaginations prevent or impede the exercise of judgments.

The action of sensible objects on the senses, tends to excite ideas respecting them, and to prevent the simultaneous occurrence of other ideas, either of imagination or judgment. It restricts us to perceptions, as prominent and commanding ideas, in all those trains of thought which occur in our waking hours. Some perceptions we must have; others we may have or not; and other ideas still, we may have or not, according as they are compatible with pre-existing ideas.

The capacity of having different simultaneous ideas, is restricted within narrow limits. Ideas of any particular class in considerable numbers, are incompatible with other ideas, on account of the extent to which they occupy the attention, and often on other accounts.

Imaginations having some degree of variety and permanence, may mingle with perceptions as separate, or be

incorporated with them as parts of the same complex ideas. But this can occur only to a limited extent.

In order to have imaginations of considerable complexity, and to retain them for any considerable time, we must cease from the exercise of complex and continued perceptions, and from that of all other orders of ideas; and in order to have perceptions and judgments of other orders, of considerable complexity, and to retain them for any considerable time, we must cease from the exercise of complex and continued imaginations.

The distinctness of ideas depends upon the degree of attention with which they are exercised, and the continuance of these exercises without remission, during periods of perceptible duration.

Simple ideas are generally distinct; complex ones are more or less indistinct. When several ideas occur contemporaneously, or in immediate and rapid succession, some of them are almost always indistinct.

This is the case with most of the imaginations which occur during our waking hours. They are transient, indistinct, and imperfect, from the co-existence of other ideas, which pre-occupy the mind; when, but for those other ideas, they would naturally have had the permanence, distinctness, and completeness of corresponding perceptions and judgments.

The imaginations which occur in sleep are more distinct and complex, and more complete than those which ordinarily occur in our waking hours, from the exclusion of other simultaneous ideas by means of the relaxed condition of the organs of sensation.

The capacity of the mind to imagine, is the same, considered absolutely, whether we are asleep or awake. But in our waking hours, we are seldom or never completely disengaged from sensations and corresponding perceptions. During those periods of sleep in which we have ideas, and are the subjects of consciousness, we have few or no sensations; and consequently, few of the perceptions which would inevitably occur at the time if we were awake.

Consequently, those imaginations which occur in sleep, possess advantages for being continued, distinct, and com-

plete, which similar ideas do not possess in our waking hours.

When awake, we are constantly employed in judging, knowing, imagining, and remembering. The consequence of this employment is the attainment of the various ideas, which we easily distinguish, as judgments, cognitions, imaginations, and reminiscences.

The same processes are carried on in those portions of our sleeping hours in which we are the subjects of consciousness; or in other words, of sensations, ideas, emotions, &c.

Our waking ideas are more or less permanent and complete, according to the interest which they excite. Those which excite no interest vanish instantly; and others continue during longer or shorter periods, according as they are objects of greater or less interest, and according to the length of time during which they continue to be so.

The same is true of the ideas which occur in sleep. Some vanish instantly on account of not exciting any interest, and others continue for minutes, and with slight remissions, for hours, through the cotemporary influence of the emotions, affections, &c., which they excite.

Dreams consist, to a great extent, of erroneous judgments, not of ideas which are known to be imaginary at the time. We find it impossible to correct these judgments till we wake, when we easily correct them by means of other later judgments, based on the most indubitable evidences afforded by sensations, reminiscences, which sensations contribute to excite, accompanying perceptions, and other accompanying judgments and cognitions.

SECTION II.

THE GENERIC PROPERTIES AND ORDERS OF REMINISCENCES.

Reminiscences differ essentially from other ideas, in the mode of their suggestion, and the accompanying ideas which relate to them, as having occurred before.

Yesterday I saw a friend; to-day I remember having seen him; yesterday I observed that he was sad or cheerful, sick or well; to-day I remember that he was in the conditions then observed. So of all other objects of thought, whether of judgment, knowledge, or imagination. Judgments, cognitions, and imaginations, are all equally the objects of memory.

Reminiscences consist of ideas, not sensations, emotions, affections, or acts of will. We remember sensations, emotions, &c., as the objects of ideas; but our reminiscences do not involve the repetition of them. The memory of a sensation of any kind, does not involve a repetition or recurrence of it; neither does that of emotions, acts of will, &c., involve a recurrence of them. We remember colors, sounds, pains, &c., without experiencing a recurrence of those sensations; and joy or sorrow, love or hatred, purposes and volitions, &c., without experiencing a recurrence of them.

To remember sensations, is to have ideas of past sensations; and to remember joy or sorrow, love or hatred, purposes and volitions, is to have ideas of these phenomena; not the phenomena themselves, which are objects of these ideas.

Whatever can be an object of thought, in the present time, may be an object of memory, in future time. There can be no reminiscences without objects of memory, any more than there can be judgments, knowledge, &c., without corresponding objects of judgment and knowledge.

Like all the other orders of ideas, reminiscences depend upon conscious exercises of some kind, as their exciting causes. We cannot remember, except by means of existing ideas, or other conscious exercises, any more than we can judge, know, or imagine, without similar aids.

Reminiscences are excited by previous ideas, or other conscious exercises. The present sight of a friend, excites ideas previously obtained by seeing him. So present pain or pleasure, joy or sorrow, and the ideas which relate to them, excite ideas of past exercises of similar characters.

Judgments may be described as inferences or conclusions, from certain premises; imaginations, as the artificial association of elementary conceptions; and reminiscences, as suggestions, depending on suggesting ideas.

Evidence leads to inferences and conclusions; judgments and cognitions suggest conceptions and imaginations; and present ideas, those which we have formerly exercised.

Reminiscences may be direct or indirect, complete or incomplete, correct or erroneous.

(1.) A direct reminiscence is one which is excited immediately by its suggesting idea, without the intervention of any other ideas, either of judgment, cognition, or imagination.

(2.) Reminiscences are indirect, when they are remotely connected with their suggesting ideas; those ideas first serving as grounds of inference, for certain judgments, imaginations, or other reminiscences, and these intermediate ideas suggesting those in question. Reminiscences are direct, considered with respect to their immediate exciting ideas, and indirect, considered with respect to their remote exciting ideas.

(3.) Reminiscences are complete, when the ideas of which they consist, embrace all the elements of the previous ideas to which they correspond.

(4.) They are incomplete, when they do not embrace all the elements of the previous ideas to which they correspond.

Completeness and incompleteness are predicated of reminiscences, considered singly, or as comprehending trains of associated ideas.

When a man remembers part of a message, with the delivery of which he was entrusted, his reminiscence is incomplete, considered with respect to the whole. If he remembers any part of it, his reminiscence is complete, considered with respect to the part remembered.

(5.) Reminiscences are correct, when the elements of which they consist, are the same as those of the original ideas which they represent.

(6.) They are incorrect, when these elements are not the same as those of their originals.

Correct reminiscences are analogous to correct judgments; and incorrect ones, to erroneous judgments.

We distinguish between those which are correct and incorrect, in the same manner as we do between correct and incorrect judgments.

The faculty of memory belongs to men, in common with animals and insects. The possession of it, in some degree, is co-extensive with ideas. All beings which are capable of ideas, by acts of judgment and cognition, are capable of reminiscences.

Memory varies in different persons, and in the same persons, considered with respect to different periods of life, both in the amount and quality of reminiscences, which are capable of being attained. Some remember much more, and for much longer periods, than others; and the same persons remember more and longer, in some periods of life, than in others.

There is a similar diversity between different persons, and the same persons at different times, in respect to the quality of their actual or possible reminiscences.

This faculty, like all others which relate to ideas, is more or less under the control of the will. We remember many ideas, in consequence of specific purposes and volitions directed to that end, which otherwise would never occur; and we prevent the occurrence of many possible reminiscences, by similar means.

We purpose to remember a text, remark, discourse, engagement, &c., without having the ideas desired, in exercise. In consequence of this purpose, we enter on a train of thought, which we judge will lead to the suggestion of the ideas desired, and, in many cases, succeed in attaining reminiscences, by means of purposes directed to that end. We purpose to prevent the recurrence of ideas which are disagreeable, and in consequence of that purpose, avoid those objects and trains of thought, which we think likely to suggest them. In many cases, we succeed by these means, in preventing the recurrence of disagreea-

ble ideas, when we should otherwise inevitably attain them.

Committing to memory, is a process designed to secure the suggestion of particular trains of ideas, on future occasions. A large proportion of our connected trains of reminiscences, occur in consequence of having been the objects of this process. We commit a discourse or poem to memory, and are enabled, by that means, to recall it, when its recurrence would otherwise be unattainable, without the aid of judgments and cognitions.

This process consists substantially, in retaining and repeating the ideas we wish to remember, during a certain period, with a view to facilitate their recurrence, by suggestion, on future occasions.

The essential conditions of reminiscences, are previous ideas, to which the reminiscence may correspond, as its original, and other previous suggesting ideas.

Ideas must exist as original judgments, cognitions, or imaginations, before they can be suggested as reminiscences. They must, also, be suggested by suggesting ideas. Without ideas, to serve as means of suggestion, we cannot obtain reminiscences, any more than we can obtain judgments, without grounds of inference.

The word idea, is sometimes applied to denote a single idea, and sometimes a succession of similar ideas, relating to the same objects. The same is true of judgment, cognition, imagination, and reminiscence. Thus, successive ideas of God, man, animals, &c., which possess the same essential properties, are conceived of and described as the same. We have a particular idea of God to-day, and have it again to-morrow. We form particular judgments to-day, and form the same to-morrow: So of imaginations and reminiscences. The reminiscence of an object occurs to-day, and occurs again to-morrow, and on subsequent occasions.

Ideas, however, are not permanent existences, but transient phenomena; and therefore, successive ideas cannot be, in all respects, identical, though they may be, in many respects, similar.

When an idea ceases, it ceases forever. It may be followed by others like it, but can never resume its existence.

My present idea that two and two equal four, is not identical with the similar idea of the relation subsisting between these numbers, five minutes since, or at any previous time. It is a particular mental phenomenon, which never existed before, and will never exist again. Similar ideas have occurred before, and similar ones may continue to occur; but each idea ceases to exist when it ceases to be in exercise, and is incapable of being, in all respects, identified with any of its successors.

It is still more obvious, that reminiscences are not identical with the previous ideas to which they correspond, and in which they originate. The reminiscence of an object is not the same as the perception of it. The former ceases before the latter commences.

We first perceive or imagine, then remember. The perception and imagination are one thing, and the subsequent reminiscence another.

These different ideas, however, have several things in common. Their objects are the same; and considered with relation to these objects, primitive ideas and reminiscences are the same. A man perceived, and a man remembered, is the same man. In the former case, he is an object of perception, and in the latter, an object of reminiscence. Perceptions depend on sensations to which they refer, as grounds of judgment, and reminiscences depend on suggesting ideas, which sustain the same relation to them, that grounds of judgment do to judgments.

Ideas are not things in the mind, but states of the mind. They are capable of being perpetuated indefinitely, but when once discontinued, can never occur again. The similar ideas which succeed them, are not the same as their predecessors, but different and similar states of the same subject, the soul. The soul is the same in all ideas, and in all other mental exercises; and in similar ideas, whether judgments, &c., or primitive ideas and reminiscences, the objects of thought are the same; but the thoughts themselves are numerically different.

SECTION III.

THE LAWS OF MEMORY, OR THE PRINCIPLES OF THE SUGGESTION OF REMINISCENCES.

1. Ideas suggest previous ideas which formerly co-existed with them.

It is seldom that a single idea, whether simple or complex, occupies the mind alone. Several are generally in exercise at the same time. This takes place in the exercise of vision. The same prospect embraces a variety of objects, several of which are objects of simultaneous perception and contemplation. One or more of those objects may subsequently be met with in a different group, and instantly suggest those previously perceived with them, for no other reason than because they were previously perceived and contemplated together. For example, I see two strangers, and am introduced to both. Tomorrow the sight of one of them instantly recalls the other, merely because they were seen together, and contemplated simultaneously before. Acts of memory, produced by similar means, are innumerable, and comprehend an important class of our reminiscences ; perhaps the most important.

Where two or three ideas have co-existed together, alone, they have a greater tendency to suggest each other, than where they have co-existed together with several others ; and where they have co-existed together, for a considerable time, they have a greater tendency to suggest each other, than where that co-existence has been transient.

Frequency of co-existence has an effect similar to the continuance of it. Both may be illustrated by the case of a student committing a discourse or section to memory. He commences with the first part of it, contemplating several words and sentences, continuously and contemporaneously, for a certain time ; then repeating the same process, till the passage is fully committed.

In this case, the continued and repeated co-existence of ideas, is the means of establishing that relation between

them, whereby one instantly suggests the other. The strength and permanence of this relation, or of the tendency to suggestion thus produced, is in proportion to the time during which the co-existence of the ideas concerned is continued, and the frequency of their repetition.

This tendency, however, may be counteracted by different associations, taking place during the same periods of time. If an idea co-exists with one or any given number of ideas to-day; with another to-morrow; and the next day with another still; and these different associations continue to occur at irregular intervals; neither of them will be as strong and certain as either would have been, had not the others occurred; and in many cases they fail entirely of establishing any considerable tendency to produce the corresponding suggestions.

The succession of ideas is in a great measure determined by suggestions which take place on account of the previous co-existence of the suggested with the suggesting idea. The example just referred to, affords a striking illustration of this, where, in remembering a discourse, or section, each phrase and sentence suggests the succeeding one in order, in consequence of their having been contemporaneously objects of previous thought and attention.

The first sentence does not suggest the third, but only the second. The second does not suggest the fourth or fifth, but only the third; and so on according to the previous co-existence of the ideas in the mind. In all successions of thought, there is a co-existence of the different ideas, which succeed each other, with those immediately preceding and following. This co-existence produces the tendency of ideas belonging to a series, to suggest those occupying the next place in the same.

Successive ideas are to some extent contemporaneous; the one that is first in the succession continuing till after that which follows is produced, and co-existing for a time with it.

The tendency of ideas to suggest former ones, in consequence of previous co-existence in the mind, conforms the production of ideas by memory, to their primitive occurrence by the exercise of the other mental faculties; and

by this means answers, in some degree, the purpose of permanent ideas. In consequence of this law, the memory of different persons varies according to corresponding varieties in their capacities of reason and imagination.

The same objects occasion different cotemporary perceptions and apprehensions, according to the genius of the individual observer and reasoner; and this diversity in the original acquisition of ideas, creates a corresponding one in their re-production.

Those who most readily and particularly notice points of agreement or disagreement in the form, structure, positions, or other relations of objects, experience a recurrence of ideas, in conformity with those habits and powers of perception. Those who most readily and particularly discover and notice the relations of causality, and whose apprehensions of objects have respect to them chiefly, as causes and effects, experience a corresponding recurrence of ideas, in conformity with their different habits and powers of original perception.

The same simple and complex ideas being differently associated on their occurrence, by the primary exercises of the mind, acquire a tendency to suggest different associates. Thus the same objects which to some minds suggest only ideas of similar or different objects, to others suggest those of causes and effects, antecedents and consequents; and to others still, those of time.

The reminiscences of the same mind are greatly diversified, partaking of the diversified character of our primary trains of thought; and ideas of one class or other predominate according to the predominance of the same in our primary trains of thought.

2. Ideas suggest previous ideas, which had one or more elements in common with them.

Most ideas of memory are complex. Very few of them are perfectly simple. Different complex ideas may have some element or elements in common, corresponding to the similar qualities and relations of their objects. These common elements serve as principles of suggestion, in the same way as ideas which have previously existed together. By this means, objects which we see and form ideas of,

for the first time, suggest similar ones never seen or contemplated with the same before. Thus new scenes remind us of those we have viewed before; ideas of strangers suggest those of friends and acquaintances; and new ideas in the various departments of knowledge, suggest previous ones.

Suggestion, in consequence of the similarity of suggesting objects, depends on the principle of co-existence. In all cases of this kind, some element or elements of the suggesting idea, have co-existed in combination with other elements, forming different complex ideas. These former combinations, therefore, are suggested by elements in existing ideas, which before existed in ideas they now suggest.

3. Ideas suggest previous ideas, by means of intermediate ones which formerly co-existed with them, or which had one or more elements in common with the suggesting ideas.

This mode of suggestion bears the same relation to that which is direct and immediate, which remote inferences do to immediate ones, or demonstrations to intuitions. Thus one idea may suggest another, some or all of the elements of which have previously co-existed with it; and that suggested idea, others which sustain the same relation to it, which it does to the first suggesting idea; and so on. The last of any such train of suggestions may have no elements in common with the first; but those which stand in immediate proximity to each other, must, in all cases, have some elements in common, to serve as principles of suggestion.

4. Objects are more or less capable of being remembered, according to the degree of emotion, affection, &c., which they excite.

Objects which excite little or no feeling of any kind, are seldom remembered at all, and continue to be capable of being remembered only for a short time. Many such objects are perceived and forgotten daily and hourly.

Objects which excite some degree of emotion, affection, &c., continue, longer than others, to engage our attention when we first attain a knowledge of them, and are remem-

bered with a degree of frequency, and during a length of time proportionable to the intensity of the feelings which they excite.

Those which excite strong feelings are long objects of thought, at the time of their producing such excitement, and are often and long remembered. As long as they continue to excite strong feelings, we continue to think of them and remember them. When they cease to produce any excitement of this kind, we soon cease to think of them, and in many cases, after a time forget them entirely.

Objects of the strongest present excitement may be forgotten, if the remembrance of them from time to time ceases to be attended with any perceptible degree of feeling. Those of comparatively slight present excitement, may be long remembered, if the reminiscence of them never ceases to awaken some perceptible degree of feeling.

5. Familiar objects are more easily remembered than others.

Those who are most familiar with numbers, remember particular numbers most perfectly, and for the longest time; those most familiar with color, remember colors; and those most familiar with sound, remember sounds with proportionable facility.

An accomplished arithmetician is able to remember numbers, and an accomplished musician sounds, more perfectly and much longer than others of equal capacities, who are not familiar with these objects.

The exercise of a judgment of any kind, facilitates the exercise of similar judgments; so of cognitions, imaginations, and reminiscences. Objects which we have frequently thought of as judgments, cognitions, or imaginations, we remember more easily than otherwise, in consequence of such previous exercises.

6. The occurrence of reminiscences may be prevented by the unremitted and vigorous exercise of the other mental faculties.

In this respect, reminiscences resemble judgments and imaginations. The mind may be prevented from judging, by devoting the appropriate time for forming judgments to the formation of imaginations only; and it may be prevent-

ed from forming imaginations, by devoting the time for forming them to the unremitting exercise of judgments. In like manner we may be so absorbed in contemplating objects of present thought, as not to think of others which they are adapted to suggest.

We may be too much occupied to remember, when if engaged less intensely, reminiscences would naturally arise.

7. Memory may be impaired or destroyed entirely by disease.

Paralytic affections produce this effect. Loss of memory is a usual and almost universal accompaniment of age, and of extreme bodily weakness, however produced. Whatever impairs the bodily constitution, tends to weaken the power of memory, and to relax our hold, both on the the present and past. Drunkenness, gluttony, and lewdness, have these effects in a pre-eminent degree.

8. Accurate discrimination and arrangement facilitate the exercise of memory.

Clearness and precision of thought are highly important on many accounts. They conduce to the most effectual exercises of reason and imagination. The more clear and precise we are in our thoughts, the more readily and correctly shall we form the judgments and conceptions which they are adapted to excite.

Clearness and accuracy of thought are as necessary to memory, as they are to judgment and imagination. Where our thoughts are confused and inaccurate, they are remembered with difficulty and imperfectly.

9. Mnemonics, or the art of memory, and the relation of reminiscences to previous acts of will.

We are often aware of having had ideas, which, if recalled, would be useful to us. In such cases, we naturally desire the recurrence of those ideas, without perceiving what they are, or attaining them. These desires lead to volitions and voluntary exercises of mind, directed to the recovery of the desired ideas.

Voluntary reminiscence is an art which requires some knowledge of the principles of suggestion, and which can be practiced only in conformity with these principles.

Children begin to learn and practice this art at an early period of life. Their knowledge and practice of it are at first imperfect. But both are gradually improved by experience and exercise; and improved in different degrees. Some become greater proficients in it than others, and have proportionably better memories. None attain the highest possible skill and ability in the practice of this art, and multitudes fall far short of a competent share of these attainments.

Reminiscences depend immediately on suggesting ideas. No act of will can produce them except by this means, and by this means they are capable of being produced without the intervention of volitions.

Ideas suggest reminiscences spontaneously, as premises lead us to infer conclusions; or as sensible objects, by means of the sensations which they excite, lead to ideas of themselves as sensible objects.

The immediate action of the will, considered with respect to ideas, is always restricted to such as exist at the time. Volitions cannot terminate directly in the production of reminiscences, or of any other class of ideas. Those ideas which are in exercise, we may, in many cases, voluntarily continue to exercise or not. We may be aware of having formerly had ideas which are not in exercise at the time, and may observe, analyze, or compare existing ideas, with a view to recover former ones. But we cannot exercise an idea, or make it in any way a direct object of volition, till we have attained it. We attain ideas only by exercising them, and we are capable of exercising them only as cotemporaneous and consecutive phenomena, having such relations to each other and to conscious exercises generally, as to occur in certain connections, and as the accompaniments and consequents of certain other mental exercises.

CHAPTER IV.

A CRITICAL ANALYSIS OF IDEAS CONSIDERED WITH RELATION TO THEIR OBJECTS.

SECTION I.

IDEAS OF PHENOMENA.

Ideas of phenomena are of two generic orders;

1. Ideas of the phenomena of minds, or of objects not material;

2. Ideas of the phenomena of bodies, or material objects.

1. Ideas of the phenomena of minds.

The first ideas which are entertained by men and other orders of thinking beings, in this world, relate to objects of consciousness. The first objects of consciousness are sensations. Till we have some sensation to be conscious of, we have nothing to serve as an object or exciting cause of consciousness; and till we are conscious of a sensation, we can have no idea of one.

Sensations are legitimate and necessary objects of consciousness. Their objective relation to consciousness is one of their essential properties, so that without this, they would not be sensations. To suppose that we have a sensation and are not conscious of it, is to suppose that we have a sensation and do not have it, at the same time, which is absurd.

Consciousness of sensations is inseparable from the sensations to which they relate. By ceasing to be conscious of them we cease to have them; and by renewing our consciousness of them we renew the exercise of them, as objects of consciousness.

The capacity to exercise consciousness of sensations, is involved in the capacity to exercise sensations, and is greater or less, according as we have more or less ability

to increase or diminish, to create or destroy sensations, by direct voluntary mental effort.

Considered as objects of consciousness, emotions, affections, and desires, are analogous to sensations. To have these exercises, is to be conscious of them; and we are always conscious of them in the degrees in which we have them. When we have them in high degrees, we are conscious of them in high degrees; when we are conscious of them in slight degrees, they are exercised in slight degrees.

Ideas and acts of will are, equally with sensations, emotions, affections, and desires, objects of consciousness. I am conscious of the ideas that two and two equal four; that men are mortal; and that life is short. I am conscious of choices, purposes, and volitions.

I cannot have an idea, without being conscious of it. If I have the idea that two and two equal four, I am conscious of this idea at the time of having it. To have it, and not be conscious of it, is impossible. It would not be an idea, if it were not an object of consciousness.

When an idea occurs, the consciousness of it occurs, as one of its essential and constituent elements; as long as it continues, the consciousness of it continues; and when it ceases to be an object of consciousness, it ceases to exist.

If we can have ideas in one case, without being conscious of them, we may in all cases; and if we can have an idea for any conceivable length of time, without being conscious of it, we may have it forever in that condition. The same is true of choices, purposes, and volitions. When a choice occurs, we are conscious of it; when a purpose is formed, we are conscious of it; and when a volition is put forth, we are conscious of it. To exercise choices, purposes, and volitions, and not be conscious of them, is impossible.

If our consciousness was not co-extensive with our sensations, ideas, emotions, and acts of will, these exercises would not be appropriate objects of knowledge, except by means of other phenomena, which might be, in some way, the exciting causes of conscious exercises.

Our consciousness of mental exercises, is the foundation and basis of all our reasonings respecting them. On this basis, we form ideas of them, as possessing various relations and properties, which are not themselves the objects of consciousness, when, if we had no consciousness to commence with, we could attain no ideas whatever.

Consciousness is necessarily co-extensive with ideas, feelings, &c.; but ideas derived from consciousness, and capable of being derived from it, are not necessary or universal attendants of the conscious exercises, from which they are inferred. We may have them, or may not have them, in connection with their logical conditions. We cannot have the idea of a man, without being conscious of it as an idea, having a man for its object. We may have it, however, without any other ideas respecting it.

Other ideas of this primary idea, having respect to it, as a phenomenon of the mind, as the effect of certain causes, and the cause of certain effects, such as emotions, affections, &c., may be legitimate judgments and cognitions, and as such, objects of consciousness, but are not exercises of consciousness merely. They are ideas, the consciousness of which is only one of their essential elements.

Consciousness is not a phenomenon different from its objects, and sustaining to them the relation of consequents to antecedents, or effects to causes. It is an essential property of its objects, and belongs to intensive mental exercises, in common with ideas and acts of will, as essential elements of them.

Our knowledge of particular sensations, ideas, &c., as objects of consciousness, and as occurring in those circumstances in which we observe their occurrence, is of the most certain kind. We may prosecute the attainment of knowledge in this department of enquiry, to a greater or less extent. This is done by different persons, and by the same persons at different times.

We may attend to our conscious mental exercises, and study them, or to the various remote objects which they

reveal. But we cannot increase our consciousness, without increasing the amount of our conscious exercises. We may prolong given exercises, which are objects of consciousness, during longer or shorter periods, and thus prolong the consciousness of them; and we may form various judgments, and exercise various cognitions, imaginations, and reminiscences, respecting the same; all which will be as much objects of consciousness, as the ideas to which they relate. In all these cases, we exercise consciousness, by attaining those sensations, ideas, &c., whose objective relation to consciousness is one of their essential elements.

2. Ideas of the phenomena of matter.

Sensations constitute a large and important class of phenomena, which are objects of consciousness. Our first exercises of reason relate to them.

They serve as so many principles, or premises, to reason from. In reasoning from them, we easily attain ideas of other more remote phenomena, on which they depend. Thus from sensations of touch, we attain ideas of resistance, exercised on different points, in different directions, and with different degrees of force; from those of sight, we gain ideas of color-producing phenomena; and from those of hearing, ideas of phenomena which concur in the production of sounds, &c.

Ideas of the phenomena of material objects are all inferred directly or indirectly from sensations. We experience certain sensations, and infer corresponding phenomena, as their exciting causes. These inferences refer to their objects as the direct or indirect objects and exciting causes of sensations, and are as certain as the grounds from which they are inferred.

The phenomena of bodies are numerous and diversified, and are the objects of various physical sciences; such as natural philosophy, chemistry, mineralogy, &c.

We seldom conceive of phenomena, whether of minds or material objects, except in connexion with conceptions of subjects to which they belong. Thus we conceive of sensations, ideas, &c., as phenomena of minds; and resistance, color, motions, &c., as phenomena of bodies. But

the conception of the phenomena in each of these cases, is capable of being clearly distinguished from that of their subjective causes. The conception of a sensation or idea is one thing, and that of a feeling and thinking mind another; the conceptions of resistance, form, color, &c., are things of one class, and those of material objects, to which these phenomena belong, things of another class.

Phenomena, and the ideas which they excite relating to the same as objects, are the first principles of reasoning. We experience sensations, and infer from them those phenomena which are directly or indirectly concurring causes of sensations. Having ascertained these phenomena, we reason in like manner from them.

It is not true that we know nothing of matter but its phenomena, any more than that we know nothing of the phenomena of material objects, but the sensations which they concur in exciting. From the sensations which material objects concur in exciting, we infer the sensible phenomena of those objects; and from their sensible phenomena, we draw other equally certain inferences. As far as we are capable of drawing legitimate and uniform inferences, we are capable of prosecuting the attainment of knowledge; no farther.

Our consciousness reveals to us only the sensations, ideas, feelings, and acts of will of which our minds are the subjects. By repeated and successive inferences from our sensations, we ascertain;

(1.) The phenomena of bodies, chimical, mechanical, &c.;

(2.) Those of other minds, indicated by means of the phenomena of material bodies, such as words, gestures, and voluntary actions of various kinds.

Our knowledge of the phenomena of other minds, is a matter of inference from the phenomena of material objects; but is not necessarily a matter of any uncertainty. We have as certain knowledge of sensations, ideas, &c., in the minds of our fellow-men, as we have of the similar exercises of our own minds.

We first attain ideas of our own sensations; then those of the phenomena of matter, which concur in producing

them ; then those of the sensations, ideas, &c., of other minds, signified by appropriate sensible phenomena.

Ideas of our sensations precede those of the phenomena which concur in their production ; and ideas of the phenomena which concur in producing our sensations, precede all perception of the sensations, ideas, &c., of other human or animal minds.

Those phenomena of matter which serve as indications of the mental phenomena of other minds, are objects of special interest.

SECTION II.

IDEAS OF MINDS, OR SPIRITUAL OBJECTS.

Ideas of minds, or spiritual objects, as things which are different from their phenomena, are universal and necessary. We are conscious of sensations, ideas, emotions, &c., and infer a subject of sensation, thought, and emotion. Sensations suggest the idea of a subject of sensations ; ideas, that of a subject of ideas ; emotions and other conscious exercises, that of a subject of emotions and other conscious exercises. We may experience sensations and other mental exercises, without thinking of their subjective cause, or agent ; but when we raise the question, whether they belong to a subject or not, we are compelled to conclude in the affirmative.

The existence of the mind, as the subject of phenomena, is an immediate inference from ideas of its phenomena. Those ideas are definite and certain ; a knowledge of them depending only on consciousness. They constitute absolute knowledge ; and the inference which they suggest respecting their subjective cause, is equally definite and certain with themselves. If we were conscious of our minds, we could not be more certain of their existence than we now are, by inference or judgment, from consciousness.

The primary deduction from our consciousness is simply, that conscious exercises are the phenomena of some

subject, without determining any thing respecting the nature of that subject, besides its existence and subjective relation to conscious exercises.

The subject of sensations is conceived of, merely as that which experiences sensations; and the subject of ideas as that which thinks, reasons, imagines, conceives, remembers, &c.; or in other words, one subject is conceived of as exercising sensations, judging, knowing, conceiving, remembering, feeling, acting; or as being the subjective cause of these various phenomena.

The name of this subject is of no consequence, any farther than it is associated with legitimate judgments and cognitions respecting it. It is usually denominated mind, or spirit, and is distinguished by these and other titles of similar import, from matter and material objects.

The two generic properties of the human mind, deduced directly from consciousness, are feeling and thought.

We know the existence of feelings and thoughts directly as objects of consciousness, and infer from these the existence of a subject or subjective cause of feeling and thought.

We know our thoughts, as sustaining definite relations to our feelings, as being, like feelings, continuous and successive, and as succeeding each in uniform modes of succession. We are conscious of different feelings and thoughts at the same times, and of the frequent recurrence of past ideas, by means of existing ones. From these and other similar phenomena, we infer the existence of one subjective cause of all the phenomena which are objects of our consciousness; one being which feels and thinks.

As soon as we are conscious of any thing, we have a principle from which to infer the existence of a subject, or subjective cause of that exercise, to which our consciousness relates. Whether we draw the inference or not, we have a ground from which to draw it, and need only consider the ground of inference, to have the inference forced upon us. As often as the question recurs, whether exercises of which we are conscious prove the existence of any thing to which they belong, or whether they are capable of existing independently of any subject; if we

judge at all, we uniformly judge the affirmative. We cannot do otherwise. To judge the negative is impossible. We may assert and imagine the negative, but we cannot judge it on valid grounds.

The supposition that there can be feelings and thoughts, without any subjective cause to produce and exercise them, is absurd. That supposition cannot be understandingly entertained and assented to by any human mind.

If feelings and thoughts prove the existence of beings, they prove their existence as the subjects of these phenomena. If the universe is not a perfect vacuum, considered with respect to beings which have a continuous existence, and if all phenomena are not destitute of any subjects to which they belong, or of any subjective causes, by which they are produced, then feelings and thoughts do not occur without involving the agency of feeling and thinking beings.

If sensations and thoughts can exist without subjects, they may exist without objects; or if they have objects in the phenomena of resistance, limited extensions, motions, &c., these phenomena, which are the objects of thought, may be equally independent of any subjective causes; and in either case, the universe would be an infinite void, so far as matter, or spirit, or any existing being whatever, is concerned.

But how, then, can we account for resistance? How explain the phenomena of solids and fluids? How form any judgment whatever? Such a supposition confounds judgment, and is inconsistent with any rational ideas.

We know the existence of sensations and ideas, because we are conscious of them. We know the existence of the mind, considered as the subjective cause or agent of sensations and ideas, by acts of judgment and cognition, deduced from our sensations and ideas. Sensations and ideas reveal the mind, as a being which is the subject and cause of these phenomena, as clearly as evidence can reveal any thing whatever. Our judgments and cognitions on this point, are not exceeded in clearness by those on any other. Clearer and more certain judgments are not conceivable.

We become aware of our existence at an early period. Ourselves are probably the first beings whose existence we learn. We first learn our existence, as subjects of conscious exercises, then as extended and material beings, having several properties which belong to unorganized matter, together with those which characterize organized and conscious beings.

The distinction between mind and matter, and conceptions of each, as having properties which do not belong to the other, are subsequent to our conceptions of both, as subjective causes of their respective phenomena. We have sensations and ideas, and perform voluntary acts; and judge these phenomena to belong to beings endued with corresponding faculties.

We observe the solidity, forms, colors, dimensions, localities, motions, &c., of material objects, and judge them to belong to corresponding objects. We subsequently compare material and spiritual objects, and infer their generic agreement as continuous, existing beings, which are the subjects of phenomena, and their specific difference, as the subjects of different orders of phenomena; none of the peculiar phenomena of mind belonging to matter, and none of the peculiar phenomena of matter belonging to mind.

As far as we can prosecute our reasonings, by certain inferences from previously ascertained truths, our conclusions are certain. Some prosecute them to a great extent, and some to small extents. Different persons know much or little of the properties of their minds, according to the more or less limited extent and frequency of their accurate reasonings on this subject.

Those phenomena which place the subjective reality of the mind on the clearest and most unquestionable grounds, are volitions and voluntary actions. Volition and action, more imperiously, if possible, than sensations and ideas, require the supposition of a being which exercises them. The contrary supposition is absurd in the highest degree.

Our ideas of minds relate to them as the subjective causes of certain phenomena, which become in some way

the objects of our knowledge, and as having indefinite capacities besides.

We first learn some of the properties of our minds, and form corresponding ideas of them. We then learn other properties of them, and modify the ideas we had previously attained, accordingly.

Having attained some knowledge of ourselves, as feeling and thinking beings, we easily attain a similar knowledge of others.

We know our fellow-men to be thinking beings, as really as we do ourselves. The same is true of animals and insects. We know animals and insects as the subjects of sensations, ideas, volitions, and voluntary actions, as really as we know ourselves and fellow-men to be the subjects of similar phenomena.

By comparing different human minds and the minds of different orders of organized beings, we discover some properties to be common to all; others to be common to all of particular orders of organized beings, and others to be peculiar to individuals. Every mind which is an object of thought, has some generic properties of different orders, and some particular properties. Its generic properties of the highest order, belong to it in common with all known minds; those of lower orders, belong to it in common with all minds of their respective orders, and its particular properties distinguish it from all other minds, and characterize it as an individual.

In this world minds exist and operate only in connexion with material organized bodies. Men, animals, and insects, are not pure spirits. They are partly spiritual, and partly material. They possess all the sensible properties of unorganized matter, which belong to them as bodies. Besides these, they possess other properties, as the subjective causes of sensations, ideas, emotions, and acts of will, which do not belong to the matter of which they consist, but to an untangible and invisible agent, which is not material.

Our knowledge of minds relates to them;

1. As beings which are susceptible of sensations, ideas, emotions, &c.

2. As different from the bodies in which their development occurs, and sustaining to them the relation of occupants to a residence, or of agents to machinery, by means of which they operate.

We first ascertain the existence of minds, as the subjects of thought, feeling, and mental action, and subsequently distinguish different minds from each other, and all minds from material objects.

The discovery of the generic properties of minds of higher and lower orders, and the discrimination of different minds, and different orders of minds from others, and from all material objects, especially from organized bodies, by means of which their development is effected, is the legitimate office of judgment and cognition.

The most important orders of minds with which we are acquainted, are;

1. Human minds;
2. Animal and insect minds;
3. Vegetable minds;
4. Angels and disembodied spirits;
5. The Divine mind.

Our knowledge of human, animal, and vegetable minds, is derived chiefly from observing their phenomena, and reasoning respecting them. Having commenced an acquaintance with these different orders of beings, we may greatly extend it by information derived from the testimony and reasonings of others.

Our knowledge of angels and disembodied spirits, is derived entirely from the scriptures, and depends upon the testimony of the sacred writers. From the same source we derive much important information respecting the character, relations, and future destinies of men and other beings.

The Divine mind is the highest and noblest object of human knowledge. It is not an object of consciousness, or of sensation. In these respects, it stands in the same relations to our capacities of knowledge, as all other minds, not excepting our own. We are as unconscious of our minds, and of the minds of our fellow-men, as we are of the Divine mind.

The knowledge of our minds is derived by inference from our consciousness, and other mental exercises. That of the ideality and spirituality of others, from sensible phenomena, which are indicative of the same.

SECTION III.

IDEAS OF MATERIAL OBJECTS.

Ideas of material objects are common to all men, and common both to men and animals. They begin to be exercised in early life, and continue to arise on various occasions, as long as the capacities of sensation and reason remain.

Ideas of material objects are of two orders, generic and particular. The former are represented by common names; such as gold, silver, earth, water, &c.; and the latter, by proper names, or common names, used to designate particular objects, and restricted to them by means of some additional epithet, or descriptive term, such as this and that, &c.; as this man, or animal, that silver coin, this portion of earth, that body of water, &c.

Ideas of particular material objects, do not differ from ideas of a class of such objects, except in regard to some of their respective properties.

One of the most general of these elements of difference, is that of unity and plurality. In ideas of particular objects, we regard them as single; in those of a class of such objects, we regard them as plural.

Ideas of particular material objects, precede those of classes of such objects. This entire class of ideas, therefore, commences with those of particular material objects.

Our ideas of different particular material objects, are in no two cases exactly alike. They possess some points of diversity, corresponding to that of their objects. They all, however, possess several properties in common.

The common properties of material objects, are;

1. Limited extension, figure, divisibility, &c.;

2. Mutual resistance ;
3. Mobility ;
4. Attraction. ,
1. The extension of material objects.

Material objects have some conceivable extension. Any thing which has no conceivable extension, is not a material object.

Objects vary in respect to their magnitudes, from those which are immensely large, such as suns and planets, to those which are extremely small.

Material objects may be too small to be discoverable by the naked eye, or by the most powerful microscopes, or to be tangible, and yet possess some conceivable extension.

The conception of an object of given dimensions, considered with respect to its dimensions, may be resolved into other conceptions of the same, as consisting of two or more parts, occupying proportionable extension. This division of objects, considered as extended into material elements of proportionable size, may be carried to any definite extent. The division of extended objects, is conceivable beyond any assignable limits. In actual practice, it can be prosecuted only to a very limited extent, either by chimical or mechanical means; but in conception, it can be prosecuted beyond any assignable limits.

Our conceptions of material objects, refer to them universally, as consisting of extended masses of matter, which, considered merely with reference to its extension, is capable of being divided and sub-divided into smaller masses of proportionable extent, beyond any assignable limits.

The idea of limited extension, involves that of figure. We can have no idea of any figure, except in connexion with extension; and we cannot conceive of finite extension, without giving it some figure. Ideas of material objects of particular forms, therefore, refer to them as extended, and as being comprehended within definite limits.

2. The capacity of mutual resistance.

Another property of material objects, is that of mutual resistance. Our knowledge of resistance is derived

from touch. Sensations from which we infer this property, are almost in constant exercise, during our waking hours. The inference is one of undoubted legitimacy and necessity. We cannot avoid it.

What we infer, in respect to the solidity of material objects is, that they resist each other with certain degrees of force. We encounter the resistance of the earth, in walking upon it, and that of all other material objects, in using them for mechanical purposes.

Air and other aeriform fluids, exercise various degrees of resistance, in common with more solid bodies.

The properties of material objects as resisting, are relative, and have respect, in all cases, to other objects of the same nature. Resistance cannot be exercised by a single object. When one object resists, there must be another which is resisted, both of which sustain similar relations to each other. The resistance of bodies is necessarily mutual and equal.

Resistance may be estimated as greater or less. The instances of it which come within the sphere of human knowledge, are all comprehended within definite limits. In some of them it is very great, and in others very small. That with which mountains and large masses generally, press on subjacent portions of matter, is very great, and the slightest we can appreciate by any means, as a direct or remote object of sensation, very small. Both, however, are limited.

Many masses of material objects, are capable of being compressed into narrower and still narrower limits, as the force applied is increased. Their power of resistance increases with the degree of their compression, and increases in uniform ratios to that in which their size is diminished. From these and other similar phenomena, we infer that matter possesses incalculably greater powers of resistance, than are ever known to be exercised in the material world, and that its compression within limits which are inconceivably small, is impossible.

A given portion of matter is of given dimensions. By the application of a given force on all sides, and in all directions, it can be reduced to one half this size; by that of

a still greater force, to one fourth; by a greater force still, to one eighth its original size, and so on; the size of the object diminishing, and its resistance increasing in a corresponding ratio.

We may conceive of the increase of the force beyond any assignable limits, and infer a corresponding diminution of the body thus compressed in size.

The extension of matter bears a certain relation to the resistance which it encounters. Under the application of given forces, it is of certain dimensions; under that of greater or smaller forces, it is of smaller or greater dimensions; its dimensions, in all cases, having a certain inverse ratio to the compressing force exerted upon it.

The greatest assignable compressing force, would leave the matter on which it is exerted, of some conceivable extension. These properties, therefore, can never destroy each other. No assignable compressing force, can destroy the conceivable extension of matter; and no conceivable extension of matter is so small, but that a force may be conceived of great enough to reduce the largest material objects within it.

Under the greatest conceivable compression matter would still be matter. If the earth were reduced within the dimensions of the smallest globe that can be made use of, to illustrate its geographical and astronomical phenomena, it would contain the same amount of matter that it now does. That it is not capable of such reduction, by the application of conceivable forces, is more than any one is authorized to say. The possibility of such a reduction, is in manifest accordance with known properties of matter. We may conceive of portions of matter incapable of compression, within given limits, by any force whatever. That any such portions exist, is more than we know.

We know that all material objects are extended in some degree; that most, if not all, are compressible by the application of force, and in proportion to the degrees of force applied; and that under different degrees of compression, they exercise corresponding and proportionable degrees of resistance.

3. The mobility of material objects.

The material universe, as far as it comes within the sphere of human observation, is all in motion. The sun and planets are the subjects of regular motions in their orbits and on their axes. All material objects on the earth, partake of the earth's motions, and are also capable of various other motions, from the application of appropriate forces.

The simplest conception we can form of a material object, is that of something extended, and capable of resistance and motion. Any thing which possesses conceivable extension, however small, and which has conjoined with it the capacity of resisting external compressing forces, from the action of other similar bodies, and of being in motion or stationary, is material. Any thing which is destitute of either of these properties, is not material.

These are not all the properties of any given material object, but they are common to all material objects, and may be denominated the fundamental properties of matter.

4. Attraction.

The property of the mutual attractions of material objects, and of all the parts of the same, in gravitation, cohesion, and chimical affinity, is almost as universal as those above mentioned; perhaps quite so. But it is not as obvious. These attractions are common to all objects of sight and touch, and exercise a constant agency in the mineral, vegetable, and animal kingdoms. They are exercised according to certain laws, or in uniform modes, many of which have been determined with accuracy.

The elements of bodies are of two kinds, mechanical and chimical.

The mechanical elements of bodies, are parts which result from mechanical divisions of them, and are more or less numerous, according to their relative size.

The chimical elements of bodies, are parts which result from a chimical division of them, and are more or less numerous, but incapable of being estimated by numbers, from their extreme minuteness.

The resolution of bodies into their chimical elements, may, in many cases, be pursued through successive

stages ; one body being resolvable into two other kinds of bodies, and one or both of the bodies thus obtained, being capable of being resolved into two or more other kinds of bodies still, &c.

There are doubtless limits beyond which chimical analysis is no farther possible ; but the attainment and determination of those limits, is a problem not to be solved by man. That matter which would result from the last possible chimical analysis, would be a curiosity beyond any which has yet been shown by chimists. It is one, however, that we have no means of attaining with certainty, if at all ; and is not an appropriate object of present knowledge, to any human mind.

The matter which is an object of present knowledge, is that, and that only, which is capable of being at present discovered and reasoned upon, on the ground of its actual phenomena.

The particular properties of material objects are innumerable ; and the full explanation of them belongs to physical, rather than mental science.

Our conceptions of particular bodies, are more or less particular, according to the particularity and number of the properties which it embraces. We may form only the most general conceptions of particular objects. We often do so. These conceptions, when formed, are frequently rendered more and more particular, by the addition of one element after another, till they become particular in a high degree.

What is true of our conceptions of material objects, in regard to their being more or less general or particular, is equally true of knowledge.

Our conceptions of material objects, relate to them as possessing certain properties, discoverable by sensation, or by immediate, or remote inferences from sensation. We infer resistance, size, form, color, &c., from sensations. Having formed a conception of a given object, as possessing these properties, we proceed to add others to them, as the result of continued observation, and of more extended reasoning, till we increase the amount of properties which are objects of our conceptions, to the greatest number possible.

The attraction of gravitation, is exercised between bodies and parts of bodies, which are situated at sensible distances from each other. It extends to the greatest distances, and is in the inverse ratio of the squares of the distances. Bodies which, at a given distance, attract each other with a force equal to one pound ; at half that distance attract each other with a force equal to four pounds ; at a third of that distance, with a force equal to nine pounds ; at a fourth of that distance, with a force equal to sixteen pounds, and so on.

Cohesion and chimical affinity are restricted to insensible distances ; but are, doubtless, effects of the same power which is exercised in gravitation, though restricted to a sphere insensibly small.

The force which holds particles of the same kind together, is called cohesion ; that which joins particles of different kinds, is called chimical affinity. Where the sphere of gravitation ends, those of cohesion and chimical affinity begin. The spheres of cohesion and chimical affinity, therefore, are bounded externally by that of gravitation.

The spheres of cohesion and chimical affinity, are bounded on their interior by a sphere of repulsion, which commences where that of cohesion and chimical affinity terminate, and which increases in certain ratios to the center.

At sensible distances, bodies attract each other with forces inversely as the squares of the distances. At insensible distances, comprehended within the sphere of gravitation, and external to the sphere of repulsion, cohesion and chimical affinity are exercised with forces proportionable to their distances, and varying according to laws which have not yet been demonstrated. At distances still smaller, the particles of matter exercise mutual repulsions, the precise laws of which, like those of cohesion and chemical affinity, are to be determined.

That matter is capable of repulsion is certain. That the sphere of material repulsion is within that of attraction, may be inferred from the impossibility of its being exterior to it, or within the same limits.

The limits of these spheres, and the forces exerted within them, may be different, considered with respect to different particles of matter. But all matter which has any one of them, doubtless has all. Whatever is the subject of gravity, is susceptible of chimical affinity and cohesion, and within still more limited spheres of resistance.

The mutual resistance of the smallest mechanical and chimical elements of matter, commences at certain distances, and increases in the inverse ratio of some function, such as the square, cube, &c., of the distances of their centers.

We thus arrive at subjects of material phenomena, which are as subtle as the mind; things which, when resolved into their smallest mechanical and chimical elements, exercise mutual resistance, within certain distances from given centers, in the inverse ratio of some function of those distances, such as their squares, cubes, &c.; and which, within other spheres exterior to those of resistance, exercise the mutual attractions of cohesion and chimical affinity, and within other spheres exterior to them, and extending perhaps indefinitely beyond, exercise the attraction of gravitation.

These things are as numerous as the smallest possible chimical elements of material bodies. Each chimical element of material bodies, is to the phenomena of matter, considered in the aggregate, what each individual mind is to the phenomena of minds. It is a single, indivisible being, possessing certain powers of resistance, cohesion, chimical affinity, and gravitation, &c.

These beings must be exceedingly numerous, and their spheres of resistance extremely small. Their existence and properties, however, as resisting and attracting beings, are as certain as the existence and sensible properties of the larger masses which they compose.

The fundamental properties of matter, when resolved into its smallest chimical elements, are mutual repulsions, within spheres of indefinitely small extent, and beyond those spheres, mutual attractions. These repulsions and attractions are always the same, considered with respect to the same particles similarly situated. They may be greatly

diversified, considered with respect to different particles, and the same differently situated. The number of chimical elements into which the smallest perceptible body is capable of being resolved, may be immensely great, but they are doubtless not absolutely innumerable. Man cannot enumerate them. But they are accurately numbered by God. It is doubtless as easy for God to take an inventory of the number of chimical elements which enter into any given portion of matter, or into the earth itself, and all objects which belong to it, as to estimate the number of human beings who have descended from Adam.

The combinations of matter possess many properties in common, but in other respects are greatly diversified. A similar diversity, no doubt, prevails among its ultimate chimical elements.

SECTION IV.

MIND AND MATTER COMPARED.

All material objects consist of ultimate material elements, which are not capable of being resolved into more simple ones. These elements are simple bodies, existing independently of each other. We can resolve many bodies into two or more kinds of elementary bodies. When we have pursued our analysis to the greatest possible extent, the last elementary bodies discovered, may be capable of being resolved into other more simple elements, or not. If they are capable of being resolved into other chimical elements, we may suppose the resolution performed; and if the elements thus obtained, are capable of being resolved into others, we may suppose that resolution performed, and the elements resulting therefrom obtained; and so on till we have accomplished the last analysis possible. There must be a last chimical analysis possible, or else successive analyses must be capable of being prosecuted to infinity, which is absurd.

The last possible analysis of material bodies, gives us their ultimate chimical elements.

These elements may be of different specific properties, which we have no means of ascertaining; but they must possess several generic properties in common with the complex elements into which they enter; such as capacities of repelling from their centers, and attracting towards them. Like the complex elements from which they are disengaged, they must be independent existences, capable of being estimated as one or more. A single ultimate chimical element of material bodies, is a single being possessing the power of resisting other material beings, within a sphere indefinitely small, and capable of attracting them from the greatest conceivable distances. The existence of such beings, is a matter of inference, and depends on an extended train of consecutive inferences, but is as certain as the premises from which they are deduced.

Elementary bodies are not as different from minds as many have supposed. Both are beings invested with certain powers.

The ultimate particles of matter exercise mutual repulsions and attractions, which give them determinate relations to space. Minds neither repel nor attract each other, or material objects, and therefore cannot have those determinate relations to space, which matter derives from these operations.

Mere matter is, from its nature, incapable of producing the phenomena which are peculiar to the vegetable and animal kingdoms. Its essential properties are those of repulsion and attraction, in determinate and separate spheres, and according to certain unchanging laws.

The highest generic property of minds in this world, is that of principles of organization, and of the action peculiar to organized bodies, in the vegetable and animal kingdoms. The phenomena of animals and vegetables require the supposition of a principle of life different from the matter of which they are composed.

The phenomena of organic life in man, animals, and vegetables, equally require the supposition of a principle of this

kind. One such principle, and but one, is necessary to every animal and vegetable, and to every human being.

The principles of animal and vegetable life, are the agents and subjective exciting causes of animal and vegetable action of every kind. Without the agency of these principles, the most perfect organizations are incapable of operating for a moment. The idea which we thus gain of minds, is that of beings capable of using the organs of animal bodies for their appropriate purposes. These purposes are different in the case of different organs, and different organized beings.

The discoverable relation between animal and vegetable minds, and the organs of animal and vegetable bodies, is simply that of an agent to an instrument. The organs are so many instruments, and the mind the agent which uses them for specific purposes. The instrument and instrumental action clearly reveal the agent; but they reveal it only as an agent operating by particular means, for the intentional or unintentional attainment of particular ends.

Animal and vegetable minds both agree, in being agents of operations, considered in relation to which, animal and vegetable organs are instruments. But the former possess other capacities of sensations, ideas, emotions, and acts of will, which do not belong to the latter.

Vegetable minds are the agents of all vegetable organic action; animal minds of all animal organic action. Besides the phenomena of organic material action, human and animal minds are subjects of phenomena of another and higher order, which are objects of consciousness. The organic effects of minds are all exterior to their agents. They are effects produced on other objects. Sensations, ideas, &c., are within the minds which exercise them, and not any possible effects on matter. The action of material organs in the functions of life, is the remote effect of minds, through the agency of which it occurs. But sensations, ideas, &c., are immediate exercises of minds, and are comprehended within the same. They may produce effects on the bodies associated with

the respective minds to which they belong, but they themselves are purely mental.

Minds and material bodies are capable of being known only as agents having certain powers. Vegetable minds have only certain powers of operating by means of vegetable organs. Animal and human minds have powers of performing the various operations involved in organic life, by means of appropriate corporeal organs, and additional powers of exercising sensations, ideas, emotions, and acts of will. Minds have no power either to repel or attract each other, or material objects.

The chimical elements of material objects have certain powers of resistance and attraction within determinate spheres, according to certain laws, but have no power of serving as principles of organic life, or of exercising sensations, ideas, &c.

The properties of beings are relative. This is equally the case both with matter and mind. Matter is capable of resisting and attracting matter only. It is not capable of producing any effects on human or animal minds, except through the medium of organized bodies. In cases where it acts on minds, the effects which it produces are sensations.

Minds are capable of using the various organs of human, animal, and vegetable bodies, to accomplish their appropriate purposes; but have no power to accomplish these purposes by any other means. They can perform actions by means of appropriate organs, which are impossible without organs. Human minds possess no power of acting, in any way, on bodies which are not organized for the purpose. So of animal and vegetable minds. All the operations which are performed by men on material objects, are performed by means of bodily organs, which are the immediate instruments of mental action. Human and animal minds have no capacities of exercising sensations, except by means of bodily organs, as instruments of sensation, and no capacity of attaining ideas of material objects of any kind, except by means of sensations.

SECTION V.

IDEAS OF GOD.

Ideas of phenomena lead necessarily to those of spiritual and material objects, which are the subjective causes of these phenomena ; and ideas of spiritual and material objects, to those of God. Our knowledge of phenomena is first, then that of ourselves and other spiritual and material beings, which belong to this world and other parts of the visible universe, then that of God. Having commenced the acquisition of knowledge, we proceed naturally and necessarily, from phenomena to spiritual and material objects, and from spiritual and material objects which are dependent and created, to a single mind which is independent and uncreated, on which all that is created depends, and from which all created things have derived their existence.

The scriptures represent the existence and essential attributes of God as capable of being clearly ascertained, from a consideration of his works. Rom. i. 19, 20. The most profound philosophers of ancient and modern times, have concurred with the inspired writers in their opinions on this subject.

Mankind generally, have believed in the existence and essential attributes of God, not merely on the ground of scriptural and traditionary instructions asserting them ; but on the ground of their own existence and the existence of other beings around them.

The proper idea of God has reference to him as an intelligent and mighty moral Being, whose existence is undriven, and therefore eternal, and who is the creator and governor of all other beings. The great mass of the human family have, in all ages, believed in the existence of such a being. Different persons have based this conclusion on different grounds ; but most have concurred in considering their own existence, and that of other beings around them, as indicating the existence of God, and as inconsistent with the contrary hypothesis.

The existence of ourselves, and of other intelligent and voluntary beings around us, is absolutely certain. It is equally certain that we and other organized beings, both animal and vegetable, have derived our existence from other similar beings who have preceded us; and they theirs from others who preceded them; and so on.

Human and animal minds are not eternal. They begin to exist as the subjects of peculiar phenomena at particular periods, and derive their existence from something which existed previously. This derivation is either from matter or mind. But it cannot be from matter, for matter has no powers of production, corresponding to this wonderful product. Take, for example, human or animal minds. Matter resists and attracts; human and animal minds feel and think. Matter is without feeling or thought, or any power whatever of producing other matter. How much less can it produce beings of a higher and nobler order!

The derivation of mind from matter is, therefore, impossible. On the supposition that matter has existed from eternity, the derivation of minds must be traced to some other source. The supposed eternity of matter does not affect the extent and limitation of its powers.

It follows, therefore, that human and animal minds are derived from mind. They are derived, and are not derived from matter; therefore, they are derived from mind. Here we may distinguish between their immediate and ultimate derivation. Their immediate derivation is from other similar minds, just as the immediate derivation of animal and vegetable bodies is from other similar bodies; but their ultimate derivation is from some more remote agent, who produces them by the instrumentality of their immediate predecessors, in the exercise of creative power.

Human and animal minds do not possess any creative power. All they can do is to exercise certain faculties, which result in certain states of themselves or of other existing beings. All the operations of human and animal minds, terminate on themselves or on other beings which previously existed. None terminate in the creation of

beings which did not exist before, but which continue after their creation to exist and operate.

Human and animal minds, therefore, are derived from a remote mind, possessing the power of creating minds. Minds are daily created. Neither matter nor pre-existing embodied minds have powers adequate to their production; therefore, they are produced by a more remote agent, who possesses powers adequate to produce them.

The product, considered both in itself and in relation to the circumstances in which it is produced, bears obvious marks of design, and proves its author to be a designing being; consequently, a being of knowledge, and one who acts from motives. Such is the clear and unembarrassed revelation of God, which may be inferred directly from human and animal minds. Vegetable minds may serve as grounds of similar inferences.

The idea that the minds of successors are derived from those of predecessors, without requiring an act of creation to produce them, proceeds on the assumption that they previously existed, but were not disengaged from the parent stock. On this hypothesis, their disengagement and establishment as separate minds, whereas before they had enjoyed no separate appreciable existence, are to be accounted for. How does a mind, which was previously one, become two, and ultimately millions, without suffering any diminution of its powers? The disengagement of the mind produced, is an effect. What is the ultimate cause of it? That cause is not the mind from which the disengagement takes place, nor any previous mind belonging to the lineal succession of dependent minds. It must, therefore, be another mind of a higher order; and the multiplication of minds from a pre-existing substance, in circumstances which bear evident marks of design, prove, as before, that the ultimate cause of this phenomenon is a being of design, and one who acts from motives.

Admitting that minds are created from a pre-existing substance, and that in each successive creation there is only a disengagement of another being from the pre-existing mass; still this disengagement takes place in circumstances clearly indicative of design on the part of some

being. By this means, that more remote agent is brought distinctly within the sphere of human knowledge. The being who disengages minds successively from a pre-existing substance, is the author of all minds by such successive disengagements.

On the theory of the creation of minds from pre-existing substances, according to existing laws, we may trace each line of successive organized beings to its origin in the beings which stand at its head. In process of time we should come to the first human pair, the first animal and insect pair, and the first vegetable of every generic order.

The creation of the first human pair embraces two parts;

1. The organization of bodies out of pre-existing matter, without modifying its properties in any way.
2. The creation of minds, either out of a pre-existing substance, or else by the formation of a substance adapted to this purpose.

On the supposition that there was at this time a substance adapted to serve as a principle of organic and animal life, the creation of such a substance would have been unnecessary. But even in that case, the creation of man would exhibit the operation of a wise, powerful, and benevolent mind. The same would be true of the creation of other organized beings, embracing every order of animals and vegetables.

On the supposition that the substance of all the minds which actuate organized beings, existed previous to the creation of such beings, we have, at that time, three orders of beings;

1. Matter;
2. The substance of human, animal, and vegetable minds;
3. The being who subsequently creates organized beings. One of these beings must be eternal.

Matter is incapable of sensations, ideas, &c. The substance which, according to the supposition, is subsequently made the principle of organic and animal life, and in the case of men and animals, a subject of sensations, ideas,

emotions, and acts of will, is at this time as senseless and unthinking as matter. The future creator of organized beings is alone a being of ideas, and capable of acting for the intentional accomplishment of pre-determined ends.

He cannot be derived from that which is destitute of intelligence; therefore he cannot have been derived either from matter, or the equally unintelligent mass which he subsequently makes intelligent; and must be underived and eternal.

These substances, however, even on the supposition that they preceded the creation of organized beings, are not necessarily eternal. They may have been created. One eternal being is sufficient to account for all other beings. Therefore, one such being is all that can be proved. The doctrine of one eternal being is necessary. We can not but admit it. More than this we cannot prove.

The doctrine of the eternity of matter, and of the substance out of which human and animal minds are made, requires us to conceive of the author of organized and thinking beings, merely as the architect of the universe, not its creator in the highest sense. The architectural skill of God is of the highest order, and is displayed on a theater so vast, and in cases so numerous, and is of an order so refined, as to excite our highest wonder and admiration. He is not, however, the disinterested architect of matter. He possesses unlimited authority and power over it. He is the absolute proprietor of all things, and uses them as instruments for the accomplishment of his purposes.

The properties of matter and mind are such as God is capable of communicating, and such as he is capable of taking away. The organization of matter and its accompanying phenomena, indicate the agency of God as a being of intelligence and power, designing and producing them; so matter itself, considered with respect to its essential properties of resistance and attraction, indicates, with equal clearness, the agency of God as its designer and producer. The ultimate particles of matter, exhibit marks of design in respect to the spheres of resistance and attraction, with which they are invested. The great

law of gravitation evinces the intelligent design and the effective power of a lawgiver, as really as any possible product of human art demonstrates the skill of the artist. The exercise of this attraction, however, is one of the essential properties of matter, and if this property was communicated by a designing mind, if it was communicated by God, we have reason to believe that all its properties were communicated by him. The same may be said of the other essential properties of matter, and of those which are particular, as well as those which are general. From which the inference is clearly authorized, that matter is created, and that God is its absolute creator.

Each particle of matter is a being possessed of certain properties, which manifest a designing artificer, as really as organized beings. The idea that the adaptation of one particle of matter to others, and of the whole to the great and glorious ends to which they are subordinated, as parts of an immense material and spiritual universe, is not the effect of design, is absurd. If these adaptations are the effect of design, then matter is created, and reveals God as its creator.

The same reasoning may be applied to minds. They are adapted to act and be acted upon, by means of organized bodies. They possess an adaptation to other things, and other things to them; and especially to each other, and to minds of different orders; clearly proving that they are the effect of design, and therefore created, not eternal.

All things indicate one and the same creator, by their mutual adaptations to each other. Matter is adapted to matter, and also to mind. Mind is adapted to mind, and also to matter. All created objects are parts of one vast system of beings, subjected to common laws, and subordinated to similar purposes. The supposition of one God is necessary; that of more than one, is not only unnecessary, but without any valid evidence in its support. Every thing proves one God: nothing proves more than one.

The idea we thus obtain of God, is a legitimate deduction from certain premises, and is, therefore, certain. We are capable of knowing God as really as we know ourselves, or any other beings.

What we know of God, comprehends the following particulars :

1. That he is underived, and therefore independent and eternal;
2. That he is a being of ideas, knowledge, wisdom, affections, purposes, and volitions, and therefore a spirit;
3. That he is the creator of material and spiritual beings, and the architect by whom the design of the universe was conceived and executed;
4. That he is the providential and moral governor of the universe, and the absolute proprietor of all spiritual and material beings; and that he has indefinite power to create and destroy;
5. That he is a being of benevolence and justice.

We know matter as consisting of a definite number of particles, which have powers of mutual resistance and attraction within certain definite spheres. We know minds as single beings, having capacities of sensation from appropriate conditions of material organs, with which they communicate, and capacities of ideas, emotions, acts of will, and voluntary and involuntary corporeal action. We know organized beings as dependent and successive, and as being produced and succeeding each other, according to certain laws, conformable to the general laws of the material universe, which bear evident marks of design on the part of some law-giving and executive power.

By certain inferences from what we know of matter, and of human and animal minds, we arrive at a knowledge of God, as the underived, eternal, independent, and all-wise Creator, both of material and spiritual beings. Having ascertained with certainty, the eternity, independence, and spirituality of God, and his relation to organized and unorganized beings, as their creator and governor, we easily infer his other divine attributes.

The proper conception of God involves no absurdity, or impossibility. No absurd conclusions can be fairly deduced from it. False conceptions of him, and the conception that there is no such being, are in many cases absurd in themselves, and lead to many legitimate conclusions, which are so.

A knowledge of God is the basis of many other important judgments and cognitions. It is the highest point to which we are conducted, by a knowledge of other things, and a point from which infinite discoveries are possible, which cannot be made from any less elevated position.

We reason from ourselves and other beings to God, as universal creator and governor, and from God back to ourselves and other beings, as sustaining to him, and to each other, the most interesting and important relations.

A complete knowledge of objects, embraces ideas of their relations to God, and through him, to other beings, as really as their direct relations to each other, and to ourselves. Genuine philosophy, therefore, is necessarily theological. It must recognize God, and contemplate all the objects of human knowledge, in their discoverable relations to him, and through him to each other. It finds God every where, not as a metaphysical abstraction, but as a real agent, possessing the most important relations to all other beings. Without a knowledge of God, to serve as grounds of farther inferences, we can know but little of other objects. With correct ideas of him, to reason from, we may pursue our discoveries beyond any assignable limits, and extend them from an infinite past to an equally infinite future. Till we arrive at a knowledge of God, all our reasonings must commence from ourselves and other beings, who belong to this world; when we come to know him, they naturally commence from him, as the ultimate ground of all reasoning.

A satisfactory knowledge of other things is impossible, without a knowledge of God. Till we attain this, the universe appears like an endless maze. Reason is confounded at every step, and hemmed in on every side. Its dim light, too feeble to disperse the surrounding darkness, serves only to increase its gloom, and develop its horrors.

The discovery of God explains a thousand mysteries, resolves a thousand perplexities, and conducts the mind to a foundation firm, and broad, and enduring enough, to serve as a basis for the most ample and magnificent superstructure of rational ideas.

SECTION VI.

IDEAS OF OBJECTS NEITHER MATERIAL NOR SPIRITUAL, EMBRACING IDENTITY AND DIVERSITY, NUMBER, SPACE, AND TIME.

1. Ideas of identity and diversity.

As soon as we are conscious of sensations, ideas, &c., we begin to institute comparisons between these exercises, and to form judgments respecting them as identical and diverse. We form ideas of certain sensations and other mental exercises, as the same, in successive periods of duration, and of others, as different. Whence we deduce ideas of sameness and difference, or identity and diversity.

Having obtained ideas of our first objects of thought, as being identical and diverse, we still more easily attain similar ideas respecting all our subsequent objects of thought. We first judge all the objects of our consciousness to be of these characters, and distinguish them as such, and then extend these judgments to spiritual and material objects, and those which are neither spiritual nor material. We judge our minds or ourselves, considered as thinking beings, to be identical in different successive portions of time, and in different places and conditions. We form similar judgments respecting material objects.

On similar grounds we judge ourselves to be different from others of the same order of beings, and from beings of other orders, and judge different objects, both spiritual and material, to be different from each other.

We are liable to form erroneous judgments respecting the identity and diversity of different objects; but many of our judgments of this class are among the most certain that we are capable of forming. Ideas of the identity of ourselves, and of our diversity, considered in respect to other spiritual and material beings, are of this description. We repeat the judgments and cognitions of our identity, considered with respect to our past selves, times without number. The same is true of the judgments of our diversity, considered with respect to our fellow-men and other beings. We know that we are identical with our

past selves of yesterday and former years, and know with equal certainty, that we are different from all other human beings.

Our identity and diversity are intimately associated. They are both relative; not absolute. We are not, in all respects, identical with our past selves, nor in all respects, diverse from others. Our identity with our past selves, is limited to that of our minds. We judge and know our minds to be the same in all successive periods of life. These judgments and cognitions are founded on conscious exercises, particularly reminiscences. No possible change in the size, conformation, and structure of our bodies, can prove a diversity in our minds. We believe on valid and obvious grounds, the minds of human beings to be the same from the first dawn of infant intelligence, till the dusky evening of age.

2. Ideas of number.

Ideas of unity and plurality, are intimately connected with those of identity and diversity.

We cannot think of objects as identical and diverse, without forming ideas respecting them as one or more. From the consideration of objects, as one or more, we deduce ideas of number. The element of number is unity. All numbers consist of units. These may be of different orders, or of the same order. When the units which make up a given number, are of the same order, the number is simple; when they are of different orders, it is compound, or complex. Thus twenty dollars is a simple number, consisting of units of the same order; twenty dollars, and twenty cents, a compound or complex number, consisting of twenty units of one order, that of dollars, and twenty of another, that of cents.

Ideas of number are first judgments, and then cognitions. We know one object to be one, two objects to be two, and so of other numbers, till we arrive at those immensely large. Absolute infinity is not predicable of numbers. The idea of a number which is absolutely infinite, is impossible and absurd. Relative infinity is a conception which enters into many important mathematical investigations, and has often been mistaken for that

which is absolute. All the infinities of mathematics, however, are only relative, not absolute. They are capable of being compared with each other, and estimated as more or less, and are considered as infinite, relatively to certain other quantities, not absolutely or relatively, to all possible finite quantities. That which can be expressed by numbers, is not absolutely infinite, because numbers are not so.

3. Ideas of space.

Ideas of space are equally peculiar and universal with those of bodies. We derive from touch, ideas of locality, and from different localities, those of extension and space. We form ideas of bodies as occupying space, and of space as that which is capable of being occupied by them.

Finite space possesses the properties of locality, quantity, and form, in common with bodies. Different portions of space occupy different localities; consist of different quantities; and are of different forms.

The locality of space is either absolute or relative. Absolute locality is estimated from fixed points. Relative locality is estimated from movable objects; such as the sun, the earth, &c.

The quantity of space is measured by mathematical solids; such as cubes, spheres, and cylinders of given dimensions. Cubic inches, feet, and miles are often made use of for this purpose.

The forms of spaces are artificial, and are either regular or irregular. Cubes, spheres, spheroids, cylinders, pyramids, cones, &c., are regular spaces. Those which differ in any respect from these and similar spaces, in their forms, are irregular.

Limited spaces are bounded by surfaces; surfaces terminate in lines; and lines in points. Mathematical points have no length; mathematical lines, no breadth; and mathematical surfaces, no thickness. Points are indivisible; lines may be divided indefinitely by points; surfaces, by lines; and solids, by surfaces. No possible division of lines can reduce them to points; no possible division of surfaces can reduce them to lines; and no possible division of solids can reduce them to surfaces. Points possess

locality without extension ; lines, locality and extension in length ; surfaces, locality and extension in length and breadth ; and solids, locality and extension in length, breadth, and thickness. The elements of lines are shorter lines ; those of surfaces, smaller surfaces ; and those of solids, smaller solids. Lineal feet consist of lineal inches ; square feet, of square inches ; and cubic feet, of cubic inches, &c. The conception of a lineal foot, is relative to that of a lineal inch ; that of a square foot, to the conception of a lineal foot ; and that of a cubic foot, to the conception of a square foot.

The conception of a line of any length, is relative to the lineal unit, in terms of which it is conceived ; that of a surface of any extent, to the superficial unit, in terms of which it is conceived ; and that of a solid, to the solid unit, in terms of which it is conceived. The same is true of the expressions of similar quantities. Modes of expression must necessarily conform to modes of conception, in order to be intelligible.

The conception of lineal units is relative to that of points, in which they terminate. Points, therefore, are the ultimate principles from which we reason, in forming ideas of space. We reason from points, in forming ideas of lines ; from lines, in forming ideas of surfaces ; and from surfaces and lines, in forming ideas of solids. With ideas of points, we are compelled to form those of lines ; with ideas of lines and points, we are compelled to form ideas of surfaces ; and with ideas of surfaces, lines, and points, we are compelled to form ideas of solids, or of figures, bounded by surfaces comprehending only space.

Space is one thing, and ideas of it another. Legitimate ideas of space are such and such only, as correspond to evidences respecting the reality.

Material objects occupy space, and serve as measures of different limited portions of it. We cannot compare different spaces, except by means of material measures of some kind.

Our first ideas of space have reference to particular defined portions of it ; as those occupied by our own

bodies and other material objects, or those comprehended within the sphere of vision, &c.

From these, we infer the existence of other portions of the same, which we are capable of multiplying, indefinitely. Having first attained ideas of finite space, we deduce from these ideas of infinite space. Space is infinite, and the idea of any defined portion of it, however small, may serve as a principle of judgment, from which to deduce ideas of its infinity. The infinity of space is one of its essential properties, and ideas of it arise necessarily from just ideas respecting limited portions of it. Any idea at all of space, lays us under a necessity, if we think of it at all, to think of it as something which is absolutely infinite.

Ideas of infinite space are as legitimate and perfect, as ideas of finite space. The former, however, cannot be resolved into the latter. No conceivable number of limited spaces make infinite space. The conception of space as consisting of numerous finite spaces, relates to the aggregate as finite. No possible multiplication of finite spaces, can make them infinite. Ideas of the finite and infinite are essentially different, and cannot be resolved into common elements. We know that certain spaces are finite, and have definite conceptions of them as such; we know equally that all space is infinite, and have indefinite conceptions of it as such. Definite conceptions of the infinite, are absurd and impossible. The incapacity to exercise them is not a weakness incident to man; but is a consequence of the nature of the object to which it relates.

Definite, means limited. To conceive of things as definite, is to conceive of them as limited. Infinite space has no limits, therefore definite conceptions of it cannot be formed.

Ideas of space as infinite, are deduced from those of finite spaces, and relate to them as grounds from which they are inferred; and without which they are impossible. Ideas of infinite spaces are relative, and relate to those of finite spaces. The latter are necessary to the former, not merely as judgments, but as conceptions.

From conceptions of space with limits, we deduce conceptions of it without limits.

4. Ideas of time.

From sensations, ideas, emotions, &c., we deduce ideas of time. Time is not an object of consciousness or of sensation, but of inference from the objects of consciousness. We are conscious of sensations, ideas, &c., and form successive ideas of them. They occur successively, and we form ideas of them as successive. They continue in exercise during longer or shorter periods, and we form corresponding ideas of them as continuous. Ideas of time involve those of succession; and ideas of succession, those of time. Without ideas of time we can have no ideas of succession; and without ideas of succession, we can have none of time.

Time is, like space, a generic object of thought, which cannot be resolved into any other. It may be resolved into parts, all of which are successive; and this resolution of it may be prosecuted to any conceivable extent, and beyond any conceivable limits. The results of all possible analyses are less extended portions of time, but portions of it which have some conceivable extension, and which sustain definite appreciable relations to the larger portions from which they are obtained. The smallest portions of time may be divided indefinitely, and reduced to others proportionably smaller, all of which are successive; but they can never be reduced by division to any other element.

Ideas of time are intimately connected with those of identity and diversity. We distinguish the present instant, minute, hour, day, &c., from subsequent or previous ones, as diverse objects of thought. The present instant is diverse from the last; and so of the present minute and hour. Different portions of time are conceived of as commencing and terminating. Seconds, minutes, and hours, begin and end. They have points from which they are reckoned, and to which they are reckoned. These chronological points do not occupy time. They only separate different portions of it.

We form ideas of our conscious exercises as continuous, and compare them with each other, in respect to this

property. Some we judge to be longer, and others shorter. The shortest exercises of which we are conscious, serve as standards of comparison, to which others are reduced by successive divisions. We consider these as units, and others as consisting of a certain number of these units; or we consider the longer periods of time, which are indicated by regular changes in the natural world, as units of higher orders, and reduce them by divisions and sub-divisions, to smaller portions, consisting of units of lower orders.

It is as essential a property of phenomena, to be continuous, as it is of bodies to be extended. All phenomena are continuous, and serve as grounds of judgment, from which ideas of time are inferred; just as all tangible objects are extended, and serve as grounds of inference, from which ideas of space are inferred.

Tangible objects are the measures of space, and phenomena the measures of time. We measure time by conscious exercises, and also by the regular changes in the material world; such as the diurnal and annual revolutions of the earth; the changes in the appearance of the moon, &c.

Conscious exercises are the primary measures of time, and measure it on the same principle that they indicate it as an object of thought. The ultimate measure of time is the shortest possible exercise of consciousness. We compare different conscious exercises, as longer or shorter. From the shortest possible, we reason to such as are twice as long; and so on, till we arrive, by addition and multiplication, at periods of the greatest conceivable length. The longest periods are only multiples of the shortest.

Ideas of days, months, years, &c., as periods of time, are based on those of seconds. We conceive of a day, as consisting of a certain number of hours, minutes, and seconds; a year, as consisting of a certain number of days; and an age, of a certain number of years, &c. Seconds, with which we commence our estimation of time, are the elements to which all other periods may be

reduced, and of which they are composed. Periods of time are comparative in two respects:

1. In respect to their quantity, as longer or shorter;
2. In respect to their positions, as earlier or later.

The lengths and positions of different periods, are both reckoned from given chronological points, in similar terms; such as seconds, minutes, hours, days, &c.

The points from which time is reckoned, bear the same relation to the times reckoned from them, that the points from which lines proceed, do to the lines which proceed from them. We reason from chronological points, in forming ideas of times, just as we do from mathematical points, in forming ideas of lines. Lines connect mathematical points, and times, chronological points.

Chronological points are denominated epochs. This word is generally applied to denote points, from which long periods are reckoned in terms of shorter ones, but is applicable to all chronological points, from which any periods of time, however short, are reckoned.

One of the most common epochs, is the present. This divides all time into the past and future. A large proportion of our ideas of time, have respect to it as reckoned from this point. This epoch is constantly advancing, and though highly important for many practical purposes, and incapable of being altogether superseded, it does not supersede the necessity of others.

A large proportion of our ideas of time, have respect to it as extending from the present moment, the present hour, the present day, year, &c.; but we find it convenient to have other more general epochs, such as that of the birth of Christ, and of the conclusion of the work of creation; and to reduce to these many of the ideas which were originally formed from less general epochs.

The most general division of time, is into the past and future. All possible periods belong to one or other of these divisions. The past is estimated in one direction from the present instant, and the future in another. The point from which these reckonings commence, is constantly advancing, and separating seconds, minutes, hours, days, years, &c., from the future, and adding them to the past.

Much that was once future, is now past; and much that is now future, will ultimately be past.

We may pursue our estimates either of past or future time, to any conceivable extent. Both are without limits. From ideas of limited portions of time, we infer that time of which they consist, and from other parts of which they are separated, is infinite. This inference is universal and necessary. Time past is infinitely extended in one direction; and time to come, in another. It has no natural divisions, but is divided artificially, in conformity with certain phenomena, which serve as points, from which to estimate it, and instruments, with which to measure it.

Time, considered without respect to any artificial divisions, and as incapable of being estimated in units of any kind, from given points, is denominated eternity. Eternity has no beginning, and no end, and is incapable of being estimated in units of the greatest conceivable duration. All definite periods of time, are parts of eternity; but they are not parts which are capable of measuring it, because eternity is immeasurable. The idea of eternity, as immeasurable, is as simple and rational as that of definite periods of time, considered as measurable, or as capable of being conceived of and expressed in terms of shorter periods.

Ideas of eternity are not mere conceptions of what may be, or may have been, but judgments and cognitions of what must be, and must have been. An eternal past and future are as real and valid objects of judgment and cognition, as days and years.

Ideas of finite time are first, then those of eternity. The latter are inferred from the former, as grounds of inference, not formed out of them, as elements of imagination. Eternity cannot be imagined till it is first inferred.

Ideas of time are in many respects analogous to those of space. Both are of frequent occurrence, and mix imperceptibly with almost all other classes of ideas.

SECTION VII.

IDEAS OF CAUSALITY AND DEPENDENCE.

Ideas of causality and dependence are attained at an early period of life, and are common to all men. They are derived ultimately from a comparison of cotemporaneous and successive phenomena. We observe the phenomena of our minds as cotemporaneous and successive, and as succeeding each other in particular orders. Sensations are followed by ideas, ideas by emotions, desires, and volitions, and volitions by voluntary actions. From these and similar observations, we form ideas of the relation of phenomena as successive, and as occurring in particular orders of succession.

From ideas of phenomena as successive, and as succeeding each other in particular orders of succession only, we deduce other ideas respecting them as causes and effects. The antecedence of phenomena is not their causality, nor their relations as consequents their dependence; but they are the grounds from which ideas of causality and dependence are deduced. We first judge and know phenomena to be successive, and then dependent. Things may be successive and not dependent. This is the case with time. All the periods of time are successive, but none of them are dependent. Many phenomena are successive, which are not dependent on their immediate perceptible antecedents. Thus, particular sensations of touch, sight, hearing, &c., may succeed particular thoughts and not depend on them, but on other appropriate causes which they reveal. So different phenomena in the material world, may follow each other in immediate succession, without any dependence in those which succeed, or preceding ones.

Night succeeds day, and day night; but neither of these phenomena is the cause of the other. Mere succession, therefore, is not the ground of the inference of causality in that which precedes, and of dependence in that which follows. This inference if legitimate, must be deduced from some higher grounds. The true grounds from

which it is deduced are not phenomena considered as successive, but considered as phenomena. Our simplest conceptions of phenomena as objects of consciousness, such as sensations, ideas, emotions, and acts of will, compel us to infer their dependence. We may think of them without making this inference, but our primitive ideas of them as phenomena, are adapted to excite other ideas of them as dependent. And when such ideas are once excited, and we come to judge whether these phenomena are dependent or not, we are compelled to decide in the affirmative.

We first judge that certain objects of our knowledge are dependent, and thus obtain correlative ideas of other objects as grounds of their dependence or causes. In the order of nature, causes are first, then effects; in that of human discovery, effects are first, then their causes.

The process by which we infer the dependence of the phenomena of matter, such as resistance attraction, &c., is similar to that by which we infer the dependence of mental phenomena. Ideas of mind and matter are inferences from phenomena, considered as dependent. The same is true of the rational idea of God.

Minds are one class of causes, indicated by certain phenomena, which sustain to them the relation of effects; material objects are another class of causes indicated by certain other phenomena, which sustain to them the relation of effects; God is the ultimate cause of all things, and is indicated by phenomena which sustains to him the relation of effects, and which point him out to the eye of reason as clearly, as the phenomena of organized beings do them, or those of unorganized beings do them.

Causality and dependence are of several different kinds.

1. Subjective and objective;
2. Voluntary and involuntary;
3. Immediate and remote;
4. Concurring and exclusive;
5. Ultimate and final.

(1.) Subjective and objective causes.

Men and animals are the subjective causes of all their sensations, ideas, emotions, and acts of will, and of all

their bodily actions, whether voluntary or involuntary ; and these sensations and other phenomena are their subjective effects ; that is, effects of which they are subjects.

Material objects are the objective causes of the sensations, perceptions, emotions, &c., which they are the means of exciting. All possible objects of thought are the objective causes of the ideas which they excite, and which but for them, would not have existed. One portion of matter is the objective cause of all those phenomena, such as repulsion and attraction, which it produces in another. In every instance of repulsion and attraction, one portion of matter repels or attracts, and is the subject of these operations ; and another is repelled or attracted, and is the object of these operations.

(2.) Voluntary and involuntary causes.

Men and animals are voluntary causes of all the effects which they produce by voluntary action of any kind. Thus men are the voluntary causes of the pain and pleasure which they produce, by their voluntary actions. I am the voluntary cause of the lines I am now writing. Men are the voluntary causes of numerous actions, and numerous artificial and natural products which they exercise a voluntary agency in producing.

Those human and animal actions which are not voluntary, are involuntary effects of human and animal agency. The same is true of all the remote effects which result from them. Matter is an involuntary cause of all the effects which it produces. The same is true of vegetable minds. They are causes, and produce obvious and numerous effects, but produce them involuntarily ; and are, therefore, involuntary causes.

(3.) Immediate and remote causes.

Immediate causes stand in immediate proximity to their effects. Minds are the immediate subjective causes of sensations and ideas ; and matter, of resistance and attraction.

Remote causes produce their effects indirectly by means of other intermediate agents. Men are immediate causes of the effects which they produce directly, and the remote

causes of the effects which flow from their immediate effects.

(4.) *Concurring and exclusive causes.*

Concurring causes are inadequate, of themselves, to produce particular effects, but co-operate with others in producing them. Subjective causes concur with objective ones, and objective with subjective; neither being effective without the concurrence of those belonging to the other class.

In the same manner, different subjective and objective causes concur with others of the same classes, and voluntary causes of both the former classes, with involuntary ones, in producing effects which they would be inadequate to produce alone.

Exclusive causes produce their effects without the concurrence of any others. All causes are exclusive, considered with respect to the effects which depend upon them alone. Different objective causes may be exclusive of each other; but they cannot be exclusive of subjective ones, except in the case of absolute creation. God is the exclusive objective cause of the beings which he creates. Created beings may produce effects exclusive of other objective causes, but not exclusive of subjects on which to operate in the production of them.

(5.) *Ultimate and final causes.*

Ultimate causes are the last to which effects can be traced. Men are the ultimate causes of those effects which originate in human agency, either voluntary or involuntary; animals of those effects which originate in the agency of animals; and material objects of those effects which originate in their agency. God is the ultimate cause of those effects which originate in the divine agency; and inasmuch as he is the absolute cause of all created beings, he is through them, as dependent causes, the ultimate cause of all effects whatever.

Final causes are reasons which induce voluntary beings to produce particular effects. The final causes of human and animal voluntary actions and pursuits, and of the products resulting therefrom, are the ends contemplated by the actions, as capable of being attained by such actions,

pursuits, and products. The final cause of study, is the attainment of knowledge; that of labor, is the attainment of the fruits of labor; that of the peculiar structure of the eye, is the excitement of sensations by means of light, &c.

The common property of causes is power. All causes possess power; and different causes possess different kinds and degrees of power. Particles of matter possess powers of mutual resistance and attraction; minds, powers of sensation, judgment, memory, emotion, and voluntary and involuntary action.

Power is of two generic orders, creative and phenomenal. Creative power belongs only to God. Phenomenal is common to all created beings, and to their creator.

Phenomenal power is that which is usually expressed by the absolute title of power. It is called phenomenal, merely in distinction from that which is creative. Power is either voluntary or involuntary. That of unorganized beings and vegetables, is involuntary; that of man and animals, both voluntary and involuntary; and that of God, voluntary.

Powers of the same kinds vary in degree. Material objects which have different powers in common, possess some of them in greater degrees than others, and the same in different degrees from those in which they are possessed by other beings.

SECTION VIII.

IDEAS OF MORAL ACTIONS AND AGENTS.

All causes are agents, and all exercises of power in producing effects, may be denominated actions. Action is of different kinds, according to the nature of the agents which put it forth. That of material agents, is either chemical, or mechanical; and is generally distinguished from the action of agents which are not material, by the title of physical action.

The action of spiritual agents, is either conscious or unconscious, and voluntary or involuntary. Sensations, ideas, &c., are conscious mental actions, the production of involuntary motions, connected with organic life, unconscious. One set of nerves is appropriated to the service of the mind, as instruments of voluntary corporeal action; and another as instruments of involuntary corporeal action.

Voluntary action is of different kinds. The most important and obvious varieties of it, are right and wrong. Some voluntary actions are right, and others wrong. All that agree in being right, belong to one class of voluntary actions, and all that agree in being wrong, to another. Voluntary actions, belonging to both these classes, are distinguished from others which belong to neither, under the title of moral actions; while those which are neither right nor wrong, are characterized as voluntary actions which have no moral character.

The voluntary actions of animals and insects, are not regarded as either right or wrong. Those of infants are similar in these respects, to the voluntary actions of animals. Infants are not capable of moral action. They become capable of it only by the attainment of knowledge, which is appropriate to a more advanced age.

Moral character is predicated of every species of voluntary action which is performed by moral agents, such as ideas, affections, purposes, volitions, and corporeal actions, and single or complex acts. Single acts may be right or wrong. The same is true of courses of action involving a repetition of similar simple acts, and the contemporaneous and successive performance of different ones.

In respect to moral actions, agents are the subjects of moral obligation. They are under an obligation to perform those which are morally good, and not to perform those which are morally evil. Those actions which are performed in consequence of a moral obligation, binding the agent to the performance of them, are morally good, and those which are performed in opposition to a moral obligation, binding to the non-performance of them, are morally evil. The nature of moral actions, therefore, both

good and evil, is determined by the nature of moral obligation.

Moral obligation is the obligation of moral agents to do right, and not to do wrong. The reasons why moral agents should do right and not do wrong, are the grounds of moral obligation. They embrace all the reasons for moral actions. These are numerous and diversified.

Right moral action, is that which is required by reasons; and wrong moral action, that which is prohibited by reasons. In this point of view, right and wrong are synonymous with reasonable and unreasonable; and right and wrong moral actions synonymous with reasonable and unreasonable actions.

What we have reasons for doing, we ought to do; what we have reasons for not doing, we ought not to do. All the actions of moral agents which are performed on account of valid reasons for performing them, are right; and all which are performed with valid reasons for not performing them, are wrong.

The reasons for different moral actions, are numerous and diversified, and are either immediate or remote.

The ultimate reasons for all voluntary action, are prospective happiness and misery. All less remote reasons which intervene between these and actions, depend on them for their efficiency. In other words, the happiness that will be lost by individuals and communities, and the misery they will incur by the non-performance of certain possible voluntary actions, are the grounds of their obligations to perform them. The same principle holds both in respect to moral actions, and to those which are not moral; or in respect to those which are performed by moral agents and other voluntary beings.

Actions are required which are productive of ever so little happiness and for ever so short a time, if that happiness is not overbalanced either by collateral or subsequent evils. Those which are productive of very great present happiness, and which continue to produce it during any assignable periods are not required, if that happiness is overbalanced by collateral or subsequent evils originating in the same cause.

Ultimate gain or loss, considered with respect to happiness, are the common grounds of all obligation; both that which is moral, and that which is not moral. Those actions which are morally good, tend on the whole to the promotion of the happiness of their agents; in most cases immediately, and in all cases ultimately. But their generic peculiarity, as moral actions, is that of a known tendency to promote the happiness of other beings. A knowledge of this tendency enters into the reason for our performing them. To perform them with a knowledge that they have it, and because they have it, is morally right; not to perform them in these circumstances, is morally wrong. Beings not capable of this knowledge, are not moral agents. Men are the subjects of moral obligation, in respect to moral actions, both right and wrong. The former they are obligated to perform, and the latter not to perform.

Right actions are of two kinds.

(1.) Those which are directed primarily to the promotion of the happiness of the agent, and secondarily to that of other beings;

(2.) Those which are directed primarily to the promotion of the happiness of other beings, and secondarily to that of the agent.

Those moral actions which are directed primarily to the promotion of the happiness of other beings, agree with others in being enforced by a regard to the happiness of the agent. The agent has some happiness to gain by performing them, and some misery to incur by not performing them. These gains and losses are valid grounds of his obligation to perform them; and oblige him to perform them.

When persons are thus obliged, those in favor of whom such obligations are created, are said to have corresponding rights. Parents are under moral obligations to provide for their children and instruct them; children have corresponding rights to parental care.

Men are under moral obligations to exercise benevolence and justice to their fellow-men; and have corresponding rights to these exercises from each other.

Rights depend on obligations, and obligations are created by prospective happiness to be obtained by the agent, as a consequence of doing certain things, and to be lost by not doing them ; and by prospective misery to be incurred by doing certain things, and by not doing certain other things. The favorable effects which result to the agent from doing right, may be considered as rewards ; and the corresponding unfavorable effects, as punishments. According to this view of the subject, moral actions are subjects of rewards and punishments. All that are morally good are rewarded, and all that are morally evil are punished.

A great variety of actions are required of men, which relate directly to the promotion of the happiness of other beings. They are required by prospective rewards and punishments, which are inseparably connected with the performance and non-performance of them.

The performance of all morally good actions is rewarded ; and the non-performance of them, and the performance of all morally evil actions is punished.

Agents are really gainers by those good actions which relate directly to the promotion of the happiness of others ; and losers by the neglect to perform them, and by the performance of actions of an opposite character.

Such are our susceptibilities and faculties, and such is the system of government under which we are placed, that benevolence, justice, and veracity, are generally and greatly rewarded ; and selfishness, injustice, and falsehood, generally and severely punished. The rewards of the former are partly in the mind, and arise directly from its susceptibilities and powers, and the laws which regulate their exercise ; and are partly external. The same is true of the punishments of the latter. All men are gainers by virtue, and losers by vice. The gains of virtue commence in its immediate and uniform effects on the subjects of it ; and the punishments of vice, in its immediate and uniform effects on the subjects of it. Both the rewards of virtue, and the punishments of vice, are protracted and carried out by the administration of numerous external benefits and injuries.

Many of the benefits which result from right actions, are such as can be attained by no other means, and many of the evils which result from wrong actions, are peculiar to those who perform them. Some of these benefits and evils are fully within the sphere of human consciousness and observation, and account for the universal attainment of ideas respecting the natural obligation of virtue, and the natural prohibition of vice. It is by this means, that men who have not a written law from their Creator, are "a law to themselves," having, within the sphere of their consciousness and observation, grounds of inference, from which to deduce the fundamental principles of virtue with the utmost clearness. Rom. ii. 14, 15.

The discoveries of unassisted reason on the subject of rights, and obligations, and on that of moral actions generally, are greatly extended by the scriptures. But they are not superseded. Ideas of right and wrong, as deduced from consciousness and observation, and from the experience of human beings in this world, are necessary as elementary conceptions for the right understanding of the scriptures.

The rights which the scriptures enforce, are, in many instances, those which men are fully adequate to discover, by deductions from their necessary consciousness and observation. These rights they enforce by an explanation of their appropriate sanctions, as discoverable from experience and observation, and by the revelation of other and higher sanctions of the same nature. They give no views of the nature of virtue and vice, or of moral good and evil, different from those which are attainable by the unassisted exercise of human reason. Certain ideas of moral good and moral evil, as qualities of moral actions, are universal. They are as natural and necessary to the human mind, in the full development of its powers, as ideas of unity and plurality, causality and dependence, or of material and spiritual beings.

The virtue and vice of the scriptures, are the virtue and vice of all sound mental philosophy and common sense; as really as the causality and dependence, and the

Deity revealed in the scriptures, are the causality and dependence, and the Deity, revealed by natural means.

Ideas of right and wrong, are inferred from our consciousness and observation, independently of any instruction from the scriptures. The knowledge which is thus commenced, the scriptures afford us the means of greatly extending, both by direct instructions on this subject, and on other related subjects which throw light upon this.

Moral goodness and moral evil are primarily properties of moral actions. One class of moral actions are morally good; another morally evil.

These terms, however, are often applied to denote the qualities of moral agents. An agent of morally good actions is denominated good; and one of morally evil actions evil. All our conceptions and denominations of agents, are derived from those of their actions. We infer the holiness or sinfulness of agents, from the corresponding qualities of their actions. So of their other qualities.

Rights belong to all beings which are capable of happiness or misery, from the agency of moral beings; moral obligations to all moral beings. Animals and insects have rights, considered in relation to men; and men are the subjects of moral obligation, considered in relation to animals and insects. Animals and insects are in many cases the objects of moral obligation, on the part of moral beings, but they are never considered as the subjects of it. They are supposed to be incapable of attaining those ideas which are necessary to serve as a basis of moral obligation and accountability.

Men are the objects of moral obligation on the part of others, from the earliest periods of their existence, and the subjects of it from the period of their attaining sufficient knowledge to be capable of distinguishing between right and wrong. This period is generally denominated that of the attainment of discretion, or of a knowledge of good and evil.

God is equally, with other moral beings, both the subject and object of moral obligation. He has invested his creatures with rights which he must respect. He has

acted voluntarily and wisely, in making such investments. His "gifts and callings are without repentance," or any occasion for a change of counsels on his part. He cannot change. To do so would be to become imperfect, and less glorious and happy than he now is. Benevolence, justice, and truth, are natural to God. It is his nature to exercise them incessantly, impartially, and perfectly. In respect to them, therefore, God is as really the subject of moral obligation, as the creatures which he has made in his image.

God is the object of moral obligation on the part of all moral beings to whom he is revealed. All creatures who know God, are under indispensable obligations to love and serve him.

The rights of God, considered with relation to his creatures, have corresponding obligations in them, considered with relation to him. Wherever God has a right, his creatures are the subjects of a corresponding obligation. The moral obligations resting upon God, considered with relation to his creatures, correspond to appropriate rights with which they have been invested by him.

God is the ultimate author of all rights and all moral obligations. He makes beings the subjects of rights and moral obligations, as he makes them the subjects of causality and dependence. By creating beings capable of happiness and misery from the agency of moral beings, he invests them with certain rights which have respect to moral beings generally, and to himself as the highest and greatest of moral beings. This is still more obvious in respect to moral beings of his creation, than in respect to others. By creating moral beings and investing them with powers of moral agency, God includes, among other investments, that of certain rights considered in respect to other moral beings, and to himself. In creating these rights, he creates corresponding obligations on the part of all the moral beings concerned, not excepting himself.

God imposes obligations on other beings, and assumes them himself. He does not degrade himself by this assumption. There is nothing dishonorable in it. He makes it because it is according to the immutable principles of

his nature to make it, and to act in accordance with it when made.

God, like other moral beings, is good from choice. There can be no moral goodness which is not voluntary. The divine choice in favor of goodness, is founded on wise and valid reasons. These reasons are derived from the adaptations of the things chosen to promote the divine glory and felicity in higher degrees, than those to which they are preferred. God's glory and felicity are the fruits of his goodness. Were he less good, he would be less glorious and happy than he now is.

God is a subject of obligation, in the same sense that other voluntary beings are. He is obliged to do some things and not to do others, by a regard to his happiness. Those things which are required by a regard to his happiness, he does, and those which he is required by the same not to do, he does not do.

God's moral actions, like those of other moral beings, may contribute directly to promote his own happiness, and indirectly that of other beings; or directly to promote the happiness of other beings, and indirectly to promote his own. A large proportion of his actions are of the latter class.

No actions are the subjects of moral obligation, which are not conducive to the greatest possible amount of happiness. God's highest happiness does not require him to do any thing inconsistent with the highest happiness of his moral subjects; and the highest happiness of men and other moral beings, does not require them to do any thing which is inconsistent with the highest happiness of each other. On the other hand, the highest happiness of God does require him to do things promotive of the highest possible happiness of holy, moral beings; and that of all moral beings requires them to do things promotive of the highest happiness of each other.

The harmony of the interests of moral beings in the performance of morally good actions, is capable of being easily inferred from numerous instances of such actions as performed by men. The idea of this harmony is one of the essential elements of the idea of rectitude or

moral goodness. Those actions which harmonize the interests of moral agents with those of other moral beings, are right, all others are wrong. Acts of benevolence, justice, and veracity, are all of this kind.

Moral goodness harmonizes the interests of its subjects with those of other beings of the same character; not with those of the morally evil.

God's interests are in harmony with those of all holy beings, but not in harmony with those of the wicked. The same is true of the interests of all who are redeemed and sanctified.

CHAPTER V.

THE ELEMENTS OF REASONING.

SECTION I.

ABSTRACTION, COMPARISON, AND SYMBOLS.

1. Abstraction.

To abstract, means to draw off, to separate; and abstraction denotes separation, effected by removing parts from others to which they were previously united.

When applied to denote a mental process, abstraction designates the separation of ideas from others with which they were associated, and the continuance of those abstracted or separated from others, after the ideas from which they are abstracted cease to exist in exercise. In every case of abstraction, some associated ideas are separated, and one or more of them continued in exercise, while others cease.

This may occur with respect to different complex ideas, which co-exist in the mind, or with respect to the elements of a single complex idea.

We abstract complex ideas from others when, in thinking of various objects, we single out one, a particular man, action, relation, &c., from others, and employ our thoughts on the object of our selection, to the exclusion of all the rest, which were at first perceived contemporaneously with this.

We abstract a simple idea from others, when we single out a simple element of a complex idea, and dwell upon it in our thoughts, to the exclusion of all the rest. Thus, in thinking of a man, we may abstract the idea of his height, age, relations as father, child, citizen, christian, &c.; or in thinking of gold, we may abstract the ideas of its color, weight, size, position, &c., from all related ideas, some of which at first co-existed with that which was the object of our abstraction.

Abstraction is analogous to attention, but not synonymous with it. We may exercise attention without abstraction, when any single object of thought is before our minds. We exercise it with abstraction, when we attend to different parts of complex objects successively. This is more or less the case in all our complex thoughts, reasonings, imaginations, &c.

In other words, abstraction is synonymous with attention, in certain cases. The same mental processes which are instances of abstraction, are also instances of attention to particular objects of thought. The exclusive attention in these cases, results in that dismissal of associated ideas, which leaves the ideas that remain in exercise, abstracted from their previous accompaniments.

The process of abstraction is constantly going on, when our minds are occupied at all with ideas. Some degrees and some instances of it are inseparable from the exercise of the mental faculties.

This process is a constant accompaniment both of reason and the imagination. Our processes of reasoning and of imagining, as they are pursued consecutively, require the repeated exercise of abstraction, at each successive stage of development, to separate from co-existing elements of thought, those which relate to our then existing purposes, and to retain them to the exclusion of others.

2. Comparison.

To compare, means to bring things together in fact, or in imagination, to ascertain the relations they bear to each other; or to ascertain the relations which things bear to each other, in the manner above specified.

Thus we compare rules, cloths, instruments, and products of every kind. In a manner analogous to this, we compare the various objects of perception and reason, whether material or spiritual, near or remote, movable or immovable, small or large.

In every instance of comparison, ideas of both the objects compared, must co-exist in the mind. Thus, in comparing rules, cloths, the productions of art, &c., we must have ideas of the different rules, cloths, and other products to be compared, in exercise at the time of making

the comparison. The more complete and accurate these ideas are, the more perfect and complete will be our comparison, and the more important will be the result.

In the comparison of external objects, either of which is capable of being easily moved, we usually bring them together for the purpose of obtaining the most perfect and definite ideas of each contemporaneously, and by that means arriving at the most complete and accurate results, in our judgments of their various relations to each other. Contiguous objects serve as contemporaneous principles of suggestion, both in respect to general ideas, and to those which are particular and specific.

When the objects to which ideas relate, cannot be brought together, we represent them by signs, and make a similar use of those signs in comparisons, to that which we otherwise make of things.

All our ideas of number, identity, quantity, individuality, similarity, dissimilarity, agreement, disagreement, truth, falsehood, good and evil, causality, dependence and independence, &c., are derived from comparisons.

Relations have respect, in all cases, to two or more objects or classes of objects. In order to discover them, we must compare the objects between which they exist; that is, we must contemplate those objects contemporaneously.

In all arithmetical, geometrical, and algebraical reasoning, we are constantly engaged in making comparisons, and in discovering relations by that means. We compare lines, superficies, solids, and quantities of every kind; and discover only relations and related objects, which their relations indicate.

3. The relation of symbols to mental processes.

Visible signs of ideas, and their relations, are of great use in directing attention, facilitating abstraction and comparison, and leading us to important and useful discoveries.

By means of them, we prosecute successfully the studies of arithmetic, geometry, and algebra, and perform with ease, various complicated processes of reasoning, in those sciences which would otherwise defy our utmost efforts. The language of these sciences is more simple, precise, and perfect, than that which we use in reference

to religion, politics, morals, legislation, and history. It is therefore better adapted to purposes of reasoning. The less perfect language of history, and of political and moral science, however, is a valuable auxiliary in reasoning on historical, political, and moral subjects.

The signs of ideas, easily suggest the ideas which they represent. By making use of them at every stage of our reasoning, to represent the objects and relations to which those reasonings appertain, we advance more easily, and with less liability to error, than without such helps. It is therefore useful in all original investigations, to write our premises, in order to draw correct conclusions, and our grounds of inference, in order to make all the important inferences which they authorize, and are adapted to suggest, and to avoid mistakes in drawing such as are unauthorized.

Writing affords us great assistance in original reasoning. Vocal words, expressive of our reasonings, are also useful, and often enable us to detect errors, into which we should otherwise have fallen, and to discover objects and relations which would otherwise have escaped our notice.

Hence we often make discoveries, by the assistance of words, when communicating our thoughts in conversation or public speaking, which escaped us in the most careful, silent investigations. And if we follow the vocal communication of our reasonings on any subject, with a written statement of the same, we generally make other discoveries still.

The use of the symbols of thought in our reasonings, assists us in every part of the process. It contributes to distinctness and accuracy in our primitive conceptions; aids attention, abstraction, and comparison; and enables us to prolong each indefinitely. It consequently aids in making all the discoveries, and in drawing all the inferences and conclusions, to which these processes are subservient.

Vocal or written signs of ideas assist the reasonings of others, by suggesting objects to be compared consecutively and simultaneously, and by indicating the relations which they are supposed to sustain. By these means, attention, abstraction, and comparison, and the attainment of knowledge, are facilitated.

SECTION II.

GENERALIZATION, AND IDEAS DENOTED BY GENERAL TERMS.

Our first ideas arise from mental exercises, which are objects of consciousness, and relate to those exercises. All others are deduced from these, and sustain to them important relations.

Most of the objects of thought are more or less complex, and are the subjects of different properties. This is the case with minds, organized and unorganized bodies, and with space and time.

We consider objects of thought as one thing, and their several properties as others; and distinguish these objects by their properties. Every property of a complex object is itself a distinct object of thought, and is capable of being compared with other properties of the same, and with the properties of other objects. All ideas of the properties of given objects, have respect to them as identical in successive periods of time, and as diverse from other properties of the same. This is true of the resistances, attractions, and other phenomena of material objects. The same objects are known as the subjects of several different properties, and different objects as the subjects of similar properties. This is the case with different particles of matter, different organized and unorganized bodies, different minds, and different ideal objects.

We observe one organized body, and ascertain several of its properties; and then observe another, and ascertain several of its properties. We then compare the properties of the two, and ascertain their relation to each other, as similar or dissimilar. Those which are similar, we call by similar names, and those which are different, by different names. A particular phenomenon of one body, we call attraction; similar phenomena of others, we call by the same name. So of repulsion and other phenomena. That which is the subject of attraction and repulsion in one case, we call matter; the subjects of similar phenomena in other cases, we call by similar names. Such is the origin of all common names. We observe

an object in one case, and give it a name; we observe other similar objects, and designate them by similar names. These names are common to all the different objects to which they are applied; and when applied to particular objects, represent them only.

Common names are applied to particular objects, as the subjects of similar properties. They represent them, therefore, as possessing those properties, considered without respect to others, by which they differ from each other.

Matter, mind, animal, man, and vegetable, are of this description. Man denotes a being possessing certain properties. It is applicable to thousands of individuals, but it denotes them, considered merely as the subjects of common properties. Different objects possessing common properties, and called by common names, constitute genera. Men constitute one genus; beasts, birds, minerals, ideas, affections, and all objects which are the subjects of common properties, and which are called by common names, others.

Objects are named with reference to those properties which are considered particularly important; generally with reference to those which are obvious, or which are capable of being easily ascertained. All properties, however, which belong to them in common, are the grounds of common appellatives and predicates, and of corresponding classifications.

The properties of objects which are the foundation of common names, are more or less general. Names which denote objects, considered only as subjects of the most general properties, are applicable to all objects which possess those properties. Those which denote them, considered as the subjects of less general properties, are applicable to all objects which possess those less general properties. Thus the name, being, is applicable to any object which exists, either material or spiritual; man is applicable to any individual of the human race, either old or young, male or female; wise man, to any man of the particular character denoted by this compound appellative.

Names describe objects as the subjects of certain properties, but they do not describe all their properties.

Those which are common to the greatest variety of objects, embrace the fewest properties, and those which are restricted to the smallest variety of objects, the greatest number of properties. Being is applicable to a greater variety of objects than man, or animal; and denotes them, considered as the subjects of proportionably fewer properties.

Proper names denote objects, as individuals, without reference to any properties which they possess in common with others, except individuality. When particular proper names, however, are appropriated to objects of particular classes, to the exclusion of others, they designate them, not merely as individual objects of thought, but individuals of particular classes.

Those objects which agree in the possession of common properties, and which are called by common names, constitute one genus or species. Beings are one genus, men another, ideas another. When the objects which constitute a genus, are distinguished from each other by common names and common properties, they are denominated subordinate genera or species. Thus spirits and bodies both belong to the genus of beings, and constitute subordinate genera or species of the same.

Genera which comprehend other subordinate ones, are denominated higher or superior, and those which they comprehend, lower or inferior. The highest genus is distinguished from all others, under the title of ultimate. Those which are next in order to any other genus, are denominated proximate, and proximate inferior or superior. Thus the genus of spirits is proximate inferior to that of beings, and the genus of beings proximate superior to those of spirits and bodies.

Species is generally used to denote an inferior genus. It does not differ from genus in any other respect. The same class of objects is often called a species, considered with reference to the individual objects which it embraces, and a genus, considered with reference to subordinate species or genera.

Generic appellations and predicates, denote objects as individuals, but as individuals possessing certain proper-

ties in common with other individuals of the same class. Those of the highest orders, denote objects to which they are applied, considered as possessing only the properties common to all objects of those orders; those of the lower orders denote objects, considered as possessing all the properties of the superior orders, together with additional ones. Generic appellations of the highest order, denote objects, considered as possessing certain properties; those of the proximate inferior orders, denote them, considered as possessing all the properties denoted by those of the superior order, together with some additional ones, and so on; appellations of each successive inferior order, denoting objects, considered as possessing all the properties of the next superior one, together with some additional ones.

The highest genus comprehends every thing in one class. This is divided into different subordinate genera, and those into others still, and so on, till we arrive at the lowest orders of things.

All names or appellatives, which are applicable to more than one object, are of a generic character, and denote objects as possessing properties which are common to a class of objects. The same is true of all the predicates which are affirmed or denied of subjects in propositions. Common predicates, of every kind, are similar to common names.

Having formed ideas of individual objects, as possessing generic properties, we form ideas of genera, as consisting of a number of such objects. The idea of a single object, as possessing properties which are common to several, is the element of the idea of a genus.

A number of similar objects, such as inches, feet, men, beings, &c., is just as legitimate an object of conception, as a single object of the same kind. It is one thing consisting of individuals more or less numerous, all of which have certain properties in common. The power of forming such ideas is mysterious, but no more so than that of forming any ideas at all. Ideas of several objects, considered as constituting one class, are of the same nature as ideas of single objects, considered as possessing different

properties, or of an object possessing only a single property, if any such exists.

Generic appellatives and predicates correspond to generic properties and phenomena. Language is the creature of ideas, and is neither more nor less than they make it. Ideas which embrace common elements, or which relate to objects having common properties, considered as having those properties, are represented by common names and predicates.

Common names and predicates are the principal vehicle of verbal communication. All verbal communications may be resolved into these, as their only essential elements.

SECTION III.

A LOGICAL ANALYSIS OF DISCOURSES.

Every speaker and writer is the constructor of oral and written discourses.

Discourses may be resolved into generic parts, denominated syllogisms; syllogisms into propositions constituting premises and conclusions; and propositions into terms and connectives. Terms are the ultimate elements of all verbal reasoning. These, with proper connections, constitute propositions; propositions constitute syllogisms; and syllogisms, discourses.

1. Logical terms.

Logical terms consist of single words, or of two or more words associated in particular phrases, which represent the objects of ideas. Any word or phrase which represents an object of thought, may serve as a logical term, and is such, whenever it is used in discourses. The expression of ideas by words, takes place only by means of words used as logical terms, or as representatives of certain objects of thought. Those terms which consist of single words, such as mind, matter, space, and time, are denominated simple terms; those which consist of two or more words associated in the same phrase, such as many

minds, large bodies, and separate spaces, are denominated complex.

Considered with respect to quantity, terms are of three orders; particular, indefinite, and universal.

(1.) Particular terms consist of words and phrases, which are used to denote particular objects of thought, to the exclusion of all others. They consist either of proper names, or of common names, used in a restricted sense; such as Adam, Abraham, Rome, London, this man, that tree; meaning, in all these cases, particular objects of thought, to the exclusion of all others, however similar.

(2.) Indefinite terms consist of words and phrases, which are used to denote particular objects, without being restricted to them exclusively; as beings, creatures, men; denoting objects of particular classes, but not distinguishing them from others of the same classes.

(3.) Universal terms comprehend common names, applied to denote all the objects of their respective genera, such as all things, every man, no act.

2. Propositions.

Propositions consist of logical terms and connectives. The terms respecting which any things are affirmed or denied, are denominated the subjects of propositions; and the terms which express what is affirmed or denied respecting the things signified by other terms, their predicates. All logical terms are either subjects or predicates of propositions. Many propositions have no connectives separate from their predicates; as God exists, the sun declines, virtue adorns its possessor. In a thousand similar cases, the predicates perform the office of connectives, in addition to that of predicates, and are capable of being resolved into separate predicates and connectives; as God is existing, the sun is declining, &c.

Simple propositions contain but one subject and one predicate; those which have more than one of either of these terms, are complex. All complex propositions may be resolved into simple ones. God is good; virtue is amiable; and vice is disgusting, are simple propositions; God is wise and good; virtue is amiable and useful; and vice is disgusting and ruinous, are complex propositions.

The most important properties of propositions, are quality and quantity.

Considered with respect to quality, propositions are of two orders, affirmative and negative. God is good; wisdom is both desirable and attainable; study is an essential pre-requisite to the attainment of wisdom, are affirmative propositions; men are not infallible; knowledge is not attainable without study; the mind is not material, are negative. The same ideas may, in many cases, be expressed either affirmatively or negatively. These different modes of expression, however, are seldom exactly synonymous, but serve as grounds of inference, from which corresponding ideas, answering to propositions of an opposite quality, may be inferred. Thus the proposition, God is just, is not exactly synonymous with the corresponding negative proposition, God is not unjust.

Either of these propositions if established, however, may serve as a ground of inference, from which to deduce the other. If God is just, it follows that he is not unjust; and if he is not unjust, it follows, since he is a moral agent, that he is just.

The same predicate cannot be correctly affirmed and denied of the same subject. The same is true of all equivalent subjects and predicates. The same and equivalent subjects, may have different, but not contradictory predicates, and equivalent predicates may, in all cases, be exchanged without involving error or absurdity.

Considered with respect to quantity, propositions, like logical terms, of which they consist, are of three orders; particular, indefinite, and universal; those whose subjects are particular, are particular; those whose subjects are indefinite, are indefinite; and those whose subjects are universal, are universal.

Most indefinite propositions may be reduced to universal or particular ones; and many are indefinite in form, when they are universal or particular in signification.

Propositions are categorical or hypothetical.

Categorical propositions relate to their objects as real; hypothetical ones, as imaginary or supposable. Peter was an apostle; wisdom is desirable; and matter is ex-

tended, are categorical propositions. Had Peter been a philosopher; if wisdom was universal; if all men were enlightened, are hypothetical propositions.

Categorical propositions are subdivided into pure and modal. Those which predicate something of a subject simply, without qualification, are pure; others are modal. The modality of propositions is frequently expressed by may, can, must, ought, &c.

Hypothetical propositions are either conditional or disjunctive.

3. Syllogisms.

Syllogisms consist of propositions and connectives, so arranged as to lead, by consecutive judgments, from premises to conclusions.

Propositions that express ideas, from which others are deduced, are denominated premises; those which express ideas deduced from the ideas expressed by other propositions, conclusions. Discourses may be resolved into as many syllogisms as they contain conclusions from ideas expressed by other propositions.

Syllogisms are of two generic orders, each of which consists of two species; (1.) Regular and irregular syllogisms; (2.) Simple and compound syllogisms.

(1.) Regular and irregular syllogisms.

Regular syllogisms consist of three propositions, the last of which is deduced from one of the other two, in conformity with a rule of judgment expressed by the other. The following are examples of regular syllogisms:

1. All moral agents ought to be holy;

2. All men are moral agents;

3. Therefore all men ought to be holy.

1. No man is infallible;

2. Popes are men;

3. Therefore popes are not infallible.

1. All men are fallible;

2. The wisest and most learned are men;

3. Therefore the wisest and most learned are fallible.

It is essential to regular syllogisms, that the subjects of their major premises should be universal terms, comprehen-

hending those of their conclusions, as subordinate genera, or individuals. The minor premise asserts the relation of the subject of the conclusion, as a subordinate genus, or individual, comprehended in the subject of the major. Thus, if the major premise relates to all men, every man, or no man, the minor asserts that its subject is a man, or an individual belonging to a class of men. When no objection lies against the minor premise, the conclusion necessarily follows from the major, because the subject of it is comprehended in that of the major, and is really the subject of the conclusion which that expresses.

The subject of the major premise is a universal term, which has the same thing predicated of it, that is predicated of the conclusion. The subject of the minor premise is a particular term, which has the subject of the major premise predicated of it; the subject of the conclusion is the same as that of the minor premise, and its predicate the same as that of the major.

The process of reasoning has generally been explained, since the time of Aristotle, as follows :

In major premises, we form judgments and cognitions, having respect to genera and species ; in minor premises, we ascertain the relation of objects as species belonging to the genera referred to in the major premise, or as individuals belonging to the species referred to in the same ; and in the conclusion, we judge the predicate of the subject to belong to it, because that subject belongs to a class of objects to which the same predicate belongs.

The general course of the mind, however, in reasoning, is the very opposite of that here stated. Instead of beginning with general judgments, and descending by analysis to particular ones, in those trains of thought which are expressed by discourses, and in all others, we begin with particular judgments, and ascend to general ones. The general does not produce the particular, but the particular the general. Particular judgments and cognitions are the source and basis of general ones; not general judgments and cognitions of particular ones.

We infer particular ideas from others. But those from which we infer them, sustain to them, in all cases,

the relation of minor premises, having the ideas inferred, for their conclusions.

The real grounds from which conclusions are inferred, in regular syllogisms, and in all other modes of speech, are their minor premises. Thus, from ideas of men as moral agents, we infer that they ought to be holy; from ideas of popes as men, we infer that popes are fallible; and from those of wise men as men, we infer that wise men are fallible. When the same ideas are inferred from different grounds, they have different minor premises.

The agreement of a judgment with others which we have previously attained respecting similar objects, is the object of an additional judgment respecting it, and subsequent to it, in the order of time; but not the foundation of it.

Conclusions are usually deduced from minor premises, before they are compared with the similar judgments expressed by majors.

The idea of one man as a moral agent, suggests ideas of other men, and of other men as moral agents or not. When we form this judgment in respect to any particular men, it is natural to consider whether we have done so in regard to other men or not. If we have judged many individuals to be moral agents, and especially if we have inferred the moral agency of all men on previous occasions, those previous judgments may be referred to as criterions by which to ascertain the validity of present judgments on subjects of a similar nature.

From ideas of particular objects, as the subjects of generic properties, we infer directly all those conclusions which have reference to them as possessing those properties. We do not infer these conclusions in one case, merely because we have done it in others, or because we have previously formed general conclusions on the same subjects, but because they are legitimate deductions from the premises in question. Other similar premises may serve as grounds of other similar inferences; but these, and these only, are the grounds of appropriate inferences which depend on no other premises.

Minor premises describe certain subjects, by predicating of them certain properties, such as man is fallible; God is

eternal ; matter is created. Conclusions express certain inferences or deductions made from these subjects, as defined in their minor premises. The minor premise is a definition, and the conclusion an inference from the object as defined. Those conclusions which are deduced from ideas of objects, as defined in minor premises, are legitimate ; those which are not deduced from ideas of them as thus defined, are not legitimate. It is a common error to define objects in minor premises, as having certain properties, and to infer conclusions from them, as having other properties different from those specified in their definitions.

When conclusions are inferred from objects considered as possessing properties not specified in the minor premises, from which they are deduced, they are illegitimate. Illegitimate conclusions, are either correct or incorrect. When they are inferred from ideas of objects as possessing properties which they really do possess, though these properties are not specified in their minor premises, they are correct. When they are inferred from objects considered as possessing properties which are imaginary, they are incorrect.

Legitimate conclusions are correct or incorrect, according as the definitions from which they are deduced, are so or not. No legitimate conclusions deduced from correct minor premises, can be erroneous ; and all illegitimate conclusions which are inconsistent with them, must be erroneous.

Every possible idea may be expressed in the form of a minor premise, and serve as a ground of inference from which to deduce other ideas which shall sustain to it the relation of conclusions.

Every legitimate conclusion from a minor premise, may be fortified by the addition of a major, showing its conformity with other judgments in respect to similar objects. Such fortification of them is necessary for the greater satisfaction of the persons forming them, and for the assistance of others in attaining them ; by showing that they are in conformity with general rules of judgment.

The addition of a major premise answers the purpose of a criterion, by which to test our particular judgments, and determine their legitimacy or illegitimacy.

The necessity of major premises arises from our liability to form illegitimate judgments. The general mass of judgments serve as rules by which to ascertain the validity of particular ones.

The judgment that one moral agent is accountable, is fortified by the fact that it is conformable to the uniform tenor of our past judgments in relation to moral agents. So of all other particular judgments. Major premises are essential parts of rational discourse, and serve to demonstrate the legitimacy of particular conclusions, in cases where they are not obvious without such demonstration. Obvious conclusions do not require any demonstration of this kind. Those which are not obvious, are often made attainable by this means, when otherwise they would not be so. A major premise adds every thing to an argument which the nature of the case admits. The minor premise serves as a ground of inference, and as an independent principle of judgment. The major premise expresses the general judgments of the human mind, respecting subjects of the same class, considered with respect to predicates of the same class. If the former agrees with the latter, it must be correct, because the judgments of the human mind, in regard to any class of subjects generally, would not agree, unless they were legitimate.

We reason first from particular, to general similar conclusions; and then make use of those general conclusions as tests of the legitimacy of particular ones, under the title of major premises.

The major premises of syllogisms ought not to be denominated premises, but rules of judgment. They comprehend conclusions of the same kind as those which they are adduced to confirm; and their natural position in arguments, is after the conclusions which they contribute to establish, but which they do not originate. The natural order of propositions in syllogisms, is ; (1.) The minor or real premise ; (2.) The conclusion ; (3.) The general rule

showing the validity of the conclusion; (4.) The application of the general rule. Thus :

(1.) Premise. Justice is morally good ;

(2.) Conclusion. Therefore it is conducive to the highest possible happiness of the agents and other moral beings ;

(3.) General rule. All morally good actions are conducive to the highest possible happiness of the agents and other moral beings ;

(4.) Therefore this particular judgment is analogous to others on the same subject, and on similar subjects.

The relation of major premises or rules of judgment, to conclusions, is properly the subject of a fourth proposition, which is not unfrequently expressed, and always implied when not expressed.

Syllogisms, having only single premises expressed, are denominated irregular. Irregular syllogisms agree with regular ones, in having conclusions expressed, and minor premises either expressed or implied. Where there is no conclusion expressed, there is no syllogism, and there cannot be a conclusion without a minor premise from which it is deduced. These, however, are often omitted in discourses where the conclusions deduced from them are stated in connection with their major premises, or general rules of judgment.

Men are moral agents : Therefore they ought to love God, is a syllogism without the major premise: and,

Moral agents ought to love God : Therefore men ought to love him, is a syllogism with the minor premise implied.

(2.) Simple and compound syllogisms.

Simple syllogisms contain but one conclusion and one minor premise. Compound syllogisms contain more than one conclusion, and the same number of minor premises, either expressed or implied, as conclusions. All compound syllogisms may be resolved into simple ones.

We obtain conclusions only by contemplating ideas from which they are deduced ; and having obtained them once, we repeat them indefinitely by the same means by which we obtained them. The only essential condition

of judgments, therefore, is ideas from which to deduce them. These ideas are expressed by minor premises only; never by majors. Ideas deduced from those expressed by the major premises of other conclusions, sustain to those premises the relations of conclusions to minor premises. The immediate grounds of inferences sustain to them the relations of minor premises.

SECTION IV.

MATHEMATICAL REASONING.

The object of mathematical reasoning is quantity, by which is meant, any thing that can be measured or estimated as one or more. Lines, superficies, solids, motions, forces, days, and years, are quantities. The principal objects of mathematical investigation are, space, motion, force, and time. Force and motion are correlative objects, inasmuch as force is a cause of motion, and is estimated by the amount of motion which it is capable of producing. Motion is measured in terms of space and time.

The following are the principal branches of mathematical science.

1. Arithmetic, the processes of which are performed by numbers;
2. Algebra, the processes of which are performed by letters and other signs;
3. Geometry, which relates to magnitude or extension, embracing lines, surfaces, and solids;
4. Trigonometry, which relates to triangles;
5. Conic sections, which relate to the peculiar figures generated by sections of cones, embracing ellipses, hyperbolas, and parabolas;
6. The Differential and Integral Calculus, which prosecutes the investigation of quantities of sensible magnitudes by means of indefinitely small elements.

The various modes and relations of quantity have been objects of attention and study from the earliest periods of

the world. Many of them were discovered and taught in the schools of ancient philosophers and mathematicians, as important matters of information and mental discipline, long before the commencement of the Christian era. Since the revival and more general diffusion of learning, in modern times, many new discoveries have been made in this department of science, its bounds greatly enlarged, and its utility greatly increased.

In mathematical investigations three things are to be distinguished;

1. The fundamental ideas or conceptions with which we commence;
2. The processes of investigation;
3. The results or conclusions.

1. The fundamental ideas with which we commence, and from which we reason in mathematical investigations.

We cannot reason without something to reason from. The ideas which we reason from in mathematics, are expressed by definitions. On account of their relation to these ideas, definitions are the foundation of mathematical knowledge. This honor belongs properly, however, to the ideas, not to the definitions which represent them. The unit is the fundamental idea of arithmetic; ideas of lines, planes, triangles, quadrilaterals, &c.; circles, or other curvilinear surfaces, and solids of various forms, are the fundamental ideas of geometry, trigonometry, conic sections, &c.

The definitions with which we commence the study of different branches of mathematics, relate to the fundamental ideas from which we reason, in pursuing the study of the same. They are of no other use than to give us those ideas, and to enable us to keep them steadily in view. Those ideas are not derived primarily from definitions. They are first formed as acts of judgment, inferring them from certain other ideas; then defined, and thus communicated by verbal signs.

2. The processes of investigation in mathematics.

These are certain modes of analyzing and comparing given ideas and of operating with them, for the purpose

of arriving at certain results. They are of two kinds, relating to theorems and problems.

Theorems are propositions or truths, which become evident by trains of reasoning called demonstrations. The following are examples of theorems in geometry: "All right angles are equal to each other: Any side of a triangle is less than the sum of the other two: Every diameter divides the circle and its circumference into two equal parts."

Problems are operations to be performed. The performance of them is called a solution. The following are examples of problems in geometry. "To divide a given straight line into two equal parts: At a given point in a straight line, to erect a perpendicular to that line: To find the center of a given circle: To inscribe a circle in a triangle."

All investigations in mathematics, from the simplest processes of arithmetic to the most intricate ones of the integral calculus, consist either of theorems to be proved, or problems to be solved.

The demonstration of theorems is first, and the solution of problems last. The modes of reasoning in respect to both, are substantially the same.

The first propositions in the different branches of mathematics, are inferred from the fundamental ideas of the same expressed by definitions, and subsequent propositions from previous ones; and so on indefinitely. Every new inference or judgment serves as a basis for others, and those for others still.

The objects of strict mathematical reasoning are purely ideal. Its lines are extended only in length; its surfaces only in length and breath; its curves and solids, &c., are all perfect in their kinds and independent of material objects.

Axioms are universal truths, which are not necessary to any department or instance of mathematical reasoning, as truths to be reasoned from, or grounds of inferences; but serve merely as rules of judgment or inference, precisely as the major propositions do in syllogisms.

Thus the proposition, that the whole is greater than any of its parts, which is an axiom in geometry, sustains the relation of major premise to all those conclusions, in which particular wholes are concluded or judged to be greater than any of their parts. So the axiom that two quantities, each of which is equal to a third, are equal to each other, serves as a major premise in all cases in which two particular quantities are concluded or judged to be equal, because they are each equal to a third quantity.

Propositions may, in most cases, be proved in different modes; single modes of proof, however, are sufficient to establish them.

The characters and signs made use of in mathematical investigations, represent, first, the fundamental ideas reasoned from; secondly, the inferences successively drawn from them; thirdly, the conclusions or ultimate inferences; and fourthly, the modes of analysis and comparison by which inferences are attained. Thus figures represent modes of unity and plurality or numbers; diagrams represent lines, triangles, squares, circles, cubes, spheres, cones, &c.

Direct mathematical demonstrations commence with certain judgments, which are either intuitive or previously demonstrated, and which serve as principles to be reasoned from. From these principles one consequence is inferred and added to the same, as an additional principle for farther reasoning; from one or more of the principles thus increased, another inference is drawn, and added to the same as an additional principle for farther reasoning; and so on, till the conclusion is attained. The conclusion is the last of a train of inferences, commencing with the truths assumed at the outset, as either intuitive or already proved.

Analytical demonstrations in mathematics, commence with the assumption of the proposition to be proved as true. From this proposition one or more inferences are drawn, and added to the same as joint principles of farther reasoning. From one or more of these, other inferences are drawn and added to the same; and from one or more of the whole thus increased, others still, till some consequence

is attained which is intuitively or demonstratively true or false; from which it is inferred, that the proposition assumed from which that true or false inference is legitimately deduced, is accordingly true or false.

Those assumptions, any legitimate inference from which is true, are themselves true; and those, any legitimate inference from which is false, are themselves false.

Analytical demonstrations consist of consecutive judgments, in all respects similar to those of synthetical ones. The only difference between these two modes of proof is, that the latter proceeds from certain premises to a direct conclusion, in favor of the truth demonstrated; the former proceeds from assumed and conjectural premises, to any intuitive or demonstrative truth; from which the truth of the premises is inferred on the principle or according to the rule, that a correct mathematical inference or judgment cannot be deduced from premises which are incorrect; or that an error in mathematical premises must vitiate all the legitimate inferences or deductions which are drawn from them.

The letters of the alphabet represent numbers, lines, surfaces, or solids; and the signs plus +, minus —, equality ==, &c., represent addition, subtraction, and equality; and indicate the processes to be performed in order to attain certain results.

Demonstrations are of two kinds, direct or indirect. By the former, we prove propositions to be true; and by the latter, we prove that they cannot be false. Both are equally certain in their conclusions, and one or the other is preferable in particular cases, according as the truth in such cases is most easily ascertained by direct or indirect methods of investigation. Some propositions can be easily proved by indirect demonstrations, which it is difficult, if not impossible, to demonstrate directly. Direct demonstrations are denominated synthetical, and indirect ones analytical.

Truths which are ascertained by a single act of judgment are intuitive, and do not require to be demonstrated. Demonstrations consist of successive judgments, the first of which is based on a fundamental idea expressed by a

definition, or on a theorem previously demonstrated ; the second depends on the first ; the third on the second ; and so on till the last. The last of the series of inferences or judgments in a demonstration, is called the conclusion, and is of the same nature as those which preceded, considered as a mental exercise.

Signs of any kind are not necessary to the attainment of the fundamental ideas on which the different branches of mathematical science are based, or to the discovery of mathematical truths by demonstrations.

Ideas of unity and space are independent both of words and other artificial signs. The same is obviously true of additions and subtractions, analyses and comparisons, by which all the various discoveries possible in this department of inquiry are effected. We can add, subtract, analyze, and compare, without making any use of words or any other signs. This is often done, and done to a greater extent by some than by others. The most accomplished and able mathematicians, depend least on signs to aid them in their processes of investigation, and the least accomplished and least able, depend most on them.

Signs, however, are of great use to all. To the novice, and to those of second rate abilities, they are of the greatest necessity. Such can do nothing without them ; and they facilitate the prosecution of extended and difficult investigations, by the most profound mathematical scholars. By means of them, one person enables others to pursue the same trains of mathematical enquiry pursued by himself, and to attain the same results, when without such aids, the prosecution of those trains of reasoning by the persons in question, would be impossible. By the same means, the most perfect masters of mathematical science are enabled to advance much more rapidly, and to pursue their investigations to a much greater extent, than would otherwise be possible.

Written demonstrations consist in the expression of the fundamental ideas reasoned from, with signs indicating the processes of analysis, comparison, &c. ; by which successive judgments are attained, and the expression of

all those judgments in their order, terminating in the conclusion.

The signs made use of, may be figures, letters, or diagrams. They are of no consequence, except as they express ideas, and express them clearly.

Written solutions bear the same relation to problems, which written demonstrations do to propositions or theorems, and consist of similar signs similarly arranged.

Demonstrations and solutions are easy or difficult, according as the signs used to designate the fundamental ideas, to denote the processes of analysis, comparison, &c.; and to express the different consecutive judgments or inferences, are easy or difficult to be understood; and according as the judgments themselves are easy or difficult. It often happens, that the signs made use of to indicate the reasoning processes and to express the results, are perfectly intelligible, when the judgments themselves are difficult. Continual and intense study of difficult mathematical reasonings, and the repeated consideration of demonstrations and solutions generally, lead to an ultimate understanding of them in many cases in which they would otherwise be incapable of being understood.

The first step in the investigation of demonstrations and solutions, is to understand perfectly the signs made use of, then to perceive the relations which they express. It is one thing to understand the sign of equality or other relations between two or more quantities, and another to perceive from an analysis and comparison of the quantities themselves, that they are really equal.

All mathematical judgments are deduced from ideas of the quantities to which those judgments appertain. We must, therefore, have perfect conceptions of these, in order to be qualified to reason about them. Having attained precise and accurate conceptions of the quantities to be investigated in any demonstration or problem, we must next analyze, compare, and judge respecting them, according to the nature and conditions of the cases.

These analyses, comparisons, and judgments, require time and attention proportionable to their abstruseness and intricacy; and in the inverse ratio of the skill and experi-

ence of the student in prosecuting similar processes of reasoning. The novice in mathematical reasoning, advances slowly and with difficulty, where the student of six months' experience in similar investigations, advances rapidly and with ease. Students of many years' experience, possess similar advantages over those who have prosecuted mathematical studies during shorter periods.

3. The results or conclusions.

The ultimate judgment in a series constituting a demonstration, is similar to those which precede it in the series, and is equally certain with them. The certainty of mathematical judgments is not affected by their remoteness from the fundamental ideas to which they relate. They may be second or fiftieth in the series, but are not more true in the first case, nor less so in the last. Our confidence in them as true, depends upon the fact that we are able to repeat the processes by which we attain them, always with the same results; never with opposite results.

The primitive ideas of quantity are judgments derived from sensations, particularly those of touch. Other ideas are derived from these by intuition, which serve as fundamental ideas, or objects of investigation, in the different branches of mathematics. Every new proposition demonstrated, is a new truth, as certain as the simplest and most obvious judgments pertaining to this department of knowledge.

Mathematics are either pure or mixed. The former relate to purely ideal quantities; the latter to such as are supposed to have a real existence; or to correspond to material objects.

The objects of pure mathematics are perfectly ideal, and incapable of being accurately represented by any visible types. Its lines are extended only in length, its surfaces have no thickness, its circles, triangles, squares, polygons, spheres, cubes, hexagons, &c., are perfect, and exist only as conceptions or ideas.

Mathematical reasonings, however, admit of numerous and important applications to the business of life, in surveying, navigation, mechanics, architecture, optics, astron-

omy, politics, the domestic and fine arts; also in natural philosophy, chemistry, and the other natural sciences. The mathematical relations of objects arise from their forms, positions, motions, forces, &c.; ideas of which are equally adapted to be reasoned from with pure conceptions of these objects, derived from any other source.

Mixed mathematics differ from pure, only in respect to the ideas to be reasoned from. Thus, in pure mathematics we reason from circles, triangles, polygons, squares, cubes, cones, and pyramids of given supposed dimensions; in mixed mathematics we reason from ideas of objects of particular forms and magnitudes, of particular motions, positions, &c., as they appear from observation and measurement. Observations and measurements furnish only the ideas to be reasoned from, in the calculations pertaining to them. The conclusions attained, bear the same relations to the premises in mixed mathematics as in pure.

Some degrees of mathematical reasoning are common to all. The highest degrees of it are restricted to few. Euclid and Archimedes, among the ancients, and Newton and La Place, among the moderns, may be referred to as examples of first rate mathematical genius. France and England have produced many others within the last two hundred years, scarcely, if at all, inferior either in point of genius or application, to the illustrious men above named.

Mathematical genius is partly natural and partly acquired. All who have naturally superior capacities for reasoning, may have mathematical genius, if their attention is early and strongly turned to this class of studies. Native endowments, which are best adapted for this class of pursuits, need to be improved by exercise, in order to attain the marked and decisive character of genius for mathematics. Early exercise is peculiarly adapted to give them the improvement which is requisite for this purpose.

Mathematics have a place assigned them among the branches of knowledge which constitute a liberal education, and have been long and deservedly in high repute, both on account of the many useful applications of which they admit, and of the discipline and improvement which

the study of them affords. The prosecution of this class of studies is an easy and effectual means of improving our reasoning powers, and qualifying us for the more successful prosecution of other pursuits. The exclusive prosecution of mathematical studies for a considerable time, however, promotes a disproportionate development of our reasoning powers, for mathematical reasoning; and leaves our other faculties proportionably less exercised, and more imperfectly developed. A mere mathematician may be a poor general scholar, and a poor philosophical and general reasoner. Instances of this have often occurred.

SECTION V.

PHILOSOPHICAL REASONING.

Philosophical reasoning relates to phenomena and their subjective causes, material and spiritual objects considered as causes and effects. It differs widely in this respect from mathematical reasoning, which relates to space, time, motion, number, &c., and may be prosecuted indefinitely, without considering whether corresponding material objects have any existence or not.

Phenomena and their subjective causes are of two kinds, physical and metaphysical, or spiritual. Those of matter and material objects, are physical. Those of mind and of all objects not material, are metaphysical or spiritual.

Each of these general divisions contains various subordinate classes of objects and their dependent phenomena, which constitute as many subordinate departments of philosophical investigation and of science.

The essential elements of philosophical reasoning, are the following :

1. The observation of phenomena and the determination of their subjective causes;
2. The analysis of complex objects;
3. Determinations of stated orders of succession among phenomena;

4. Determinations of the causality and dependence of spiritual and material objects, and their phenomena.

5. The distribution of objects into higher and lower genera.

1. The observation of phenomena, and the determination of their subjective causes.

The first duty of a philosopher is that of observation. Phenomena are objects to be observed. Their subjective causes are not revealed otherwise than by the phenomena which they exhibit. Physical and metaphysical science take their rise in observations.

We observe solids, liquids, æriform fluids, heat, light, electricity, &c., and obtain our first correct ideas of them from observation. So we observe our sensations, ideas, emotions, affections, acts of will, &c., and obtain our first correct ideas of them from the same source.

The more extensive and accurate our observations are in respect to any class of phenomena, the more extensive and accurate, other things being equal, will be our knowledge of the same. The first thing to be done in entering on the study of matter, is to observe accurately the phenomena of matter; and the first thing to be done in entering on the study of the mind, is to observe the phenomena of the mind. The same is true of any particular class of physical or metaphysical objects, and phenomena.

Opportunities of observation ought to be carefully sought and improved by every class of philosophical reasoners. Experiments in chemistry and natural philosophy have been instituted with great advantage, for the purpose of ascertaining and demonstrating the various phenomena of those sciences. These experiments are useful chiefly as affording opportunities for the observation of phenomena.

The observation of phenomena ought to be prosecuted perpetually and simultaneously with other modes of philosophical reasoning. A philosophical reasoner can never, with propriety, cease to be a philosophical observer. In respect to difficult and important subjects, it is useful to make our observations a matter of careful record, in order that we may accurately remember, and easily review them.

As the powers and opportunities of observation possessed by each individual are limited, it is highly useful and necessary in many cases to have recourse to the observations of others. These, properly recorded and authenticated, may answer the same purpose as if they had been made by ourselves. It is a good rule, however, never to depend on the observations of others, when we have ability and opportunity to make adequate observations ourselves.

In order to be sure that our observations are correct, it is necessary to make them with deliberation, and often to repeat them. Their correctness may, in many cases, be still farther confirmed with advantage, by comparing them with the observations of other competent observers and witnesses.

Inaccurate observations have, in all ages, greatly impeded the progress of philosophical science, and are the common support of erroneous theories both in physics and metaphysics. The eminent services of Bacon, the father of experimental philosophy, consisted chiefly in the clearness and force with which he insisted on the observation of phenomena, as an indispensable means of the attainment of real and useful knowledge. The superior success of modern philosophers, compared with the achievements of the ancients, in ascertaining the laws of the material and spiritual world, are owing chiefly to the greater number and accuracy of their observations.

The observation of phenomena leads naturally to the determination of their subjective causes. So intimately are ideas of these causes connected with those of their phenomena, that it is difficult to separate them. The phenomena of light leads us to think of the substance which is the subjective cause of these phenomena; those of heat, electricity, and magnetism, of the substances which are the subjective causes of those different classes of phenomena; and those of sensation, ideas, and emotion, to think of minds as their subjective causes. Ideas of the phenomena of matter involve those of matter as their subjective cause; and ideas of the phenomena of mind involve those of mind as their subjective cause.

To form ideas of phenomena independent of subjective causes, is impossible. The conception of a change, involves the idea of something changed ; that of an appearance, of something appearing ; and that of phenomena of any kind, other ideas of something of which the phenomena are attributes and manifestations. Some subjective cause we must assume as exhibited in phenomena. The nature of that cause we often mistake by associating other real or supposed phenomena with it, and attributing to it properties which it does not possess. We ought to attribute to each known subjective cause, its own phenomena, and no others. We may then identify the subjective causes of different phenomena as far as we find evidence of such identity ; no farther.

2. The analysis of complex objects.

Physical objects are analyzed by being separated into parts, which sustain certain perceptible relations to each other. Thus water is resolved into oxygen and hydrogen, sulphuric acid into sulphur and oxygen, oxyd of iron into oxygen and iron, and numerous other substances into their component elements. The phenomena of material bodies may each be considered separately. Thus the phenomena of gold, color, weight, extension, adhesion, &c., which we analyze, considering each separately from the rest. So we analyze the phenomena of the mind, when we distinguish separate mental exercises, such as sensations, ideas, emotions, &c., from others, and consider them separately.

The object of analysis is merely to separate phenomena and objects which are different, in order to investigate them particularly.

3. Determinations of stated orders of succession among phenomena.

Phenomena may be considered as simultaneous or successive. A large proportion of the phenomena of material objects are simultaneous, such as their visible and tangible forms, and many of their chemical and mechanical operations. The same is true of many of the phenomena of spiritual objects, such as sensations, idea, &c.

The same phenomena may be simultaneous, considered with respect to some phenomena, and successive with respect to others. Thus day and night, summer and winter, seed time and harvest, blossoms and fruit in vegetables, and numerous other phenomena in the natural world, are both simultaneous and successive. The same is true of sensations and ideas of perception, ideas of particular sensible objects, and emotions of beauty, sublimity, &c.

The order in which phenomena occur, is an appropriate and important object of philosophical investigation. In many instances they follow each other in a particular order, which is repeated with little or no variation after certain intervals; and so on perpetually. Thus certain phenomena of the sun are repeated with little variation daily, others annually, and others still, after a series of several years. Certain phenomena of the moon are repeated with little variation monthly, annually, and after a certain series of years, successively.

The investigation of uniform orders of succession among phenomena, pertains in a degree to those of the mind, though in a less degree than to the phenomena of material objects.

Those phenomena which precede others in different orders of succession, are called antecedents, and those which follow, consequents.

Some orders of successive phenomena are easily discovered, and attract the general notice of mankind. Others are less obvious, and are discovered only by means of numerous and extended observations, analyses, and comparisons.

The order of succession among phenomena is analogous to their chronological order; the former, however, has respect to events considered merely with relation to each other, as antecedents or consequents; and the latter, with relation to time as indicated and measured by particular successions, which are universally known; such as days, months, and years.

4. Determinations of the causality and dependence of spiritual and material objects, and their phenomena.

Phenomena may be successive, and may occur in uniform orders of succession, without sustaining to each other the relations of causality and dependence. This is true of the successions of day and night, and their visible accompaniments. These phenomena follow each other in stated orders of succession; but the antecedent phenomena do not produce their consequents, or the consequents depend on their antecedents.

Day does not produce night, nor night day; summer winter, nor winter summer; though they follow each other in stated orders of succession.

Besides the relations of antecedence and consequence, phenomena possesses other different relations of causality and dependence. Invariable antecedence does not necessarily imply causality, nor invariable consequence, dependence. Of several invariable antecedents, some only are the causes of certain consequences; and of several invariable consequences, some only are the effects of particular antecedents. We first observe and analyze phenomena; then determine their relations as antecedents and consequents; then their relations as causes and effects; and lastly, distribute them into genera and species.

Those antecedents which have consequences depending upon them, we denominate causes, and denominate their dependent consequences, effects. Thus volitions are the antecedents of voluntary actions in speaking, writing, walking, and performing the various labors of which men are capable. Particular volitions precede particular actions, and produce them. Our actions are indefinitely varied, according to the nature of our volitions; therefore we infer that volitions are the causes of voluntary actions, and voluntary actions their effects. Percussion is, in many cases, the antecedent of motion in respect to solid and fluid bodies. The amount and direction of motion produced, vary according to the force and direction of the blow which produces it; therefore we infer that percussion is a cause of motion; and the motions produced by it, are denominated its effects.

Different causes often co-operate in producing effects, and modify the influence exerted by each other. Thus,

a body projected horizontally above the earth's surface, would, if left to the sole influence of that projectile force, continue to move forever with a uniform velocity in that direction ; but through the influence of gravitation, and the resistance of the air, its velocity is constantly retarded, and its direction inclined towards the earth till it ceases to move.

Sound philosophy requires us to investigate all the causes which co-operate cotemporaneously and successively in producing particular effects, and all the effects which result from the operation of particular causes.

Causes and effects are the elements of many different cotemporaneous and successive orders of phenomena, all of which are more or less dependent on each other.

With the exception of the elementary particles of matter, those causes which are met with in this world, are all dependent on others which have preceded them in the different orders of beings, and are all changeable. They are, therefore, dependent causes, being themselves, in their present forms and states, the effects of previous causes by which they have been produced.

All questions in philosophy relate to what has been, what is, and what is to be. We are capable of knowing much of what has been, much of what is, and much of what is to be.

This knowledge, however, must relate to phenomena, and their subjective causes revealed by them; the order of their succession and their chronology ; their causality and dependence; and the distribution of the same in genera and species.

Various instances of causality and dependence have been the objects of successive discoveries, from the earliest periods of the world till the present time. The statement and explanation of them constitute a large and important part of the different branches of philosophical science. This is true of Chemistry, Natural and Mental Philosophy, and all the natural sciences. These relations are in many cases extremely obvious ; so much so as not to be easily mistaken or overlooked. In other cases, they

can be discovered only as the result of extensive and accurate observations and analyses, and frequent comparisons, aided by scientific classification and arrangement.

5. The distribution of objects into higher and lower genera.

The classification of phenomena and their subjective causes, is next in order to their observation and analysis. We first observe and analyze, then classify the objects of our observation and analyses, referring those which are similar to the same classes, and those which are dissimilar to different classes. A perfect classification requires the reduction of the objects classified, to the smallest number of classes possible, according as they are in any respects similar; and their distribution into the largest number possible, according as they are in any respects dissimilar. The same objects ought to be reduced to genera of the highest order, according to their most general points of resemblance; and distributed into those of lower orders, and into species still subordinate, according as they resemble each other in a greater number of particulars, and differ proportionably from objects of other species belonging to the same genera.

The mental processes subsidiary to the classification of phenomena and their subjective causes, are observation, analysis, and comparison. Observation is first in order, analysis next, and comparison last. By comparing objects, we discover their similarity and dissimilarity, and are enabled to classify them accordingly. These different processes require to be prosecuted in the order above indicated, and also to some extent cotemporaneously.

We must have made some observations in order to have any thing to analyze; and in many cases, we must analyze the phenomena and their subjective causes ascertained by observation, in order to be able to institute the comparisons necessary to their proper classification. But we may prosecute our observations, analyses, comparisons, and classification in successive independent orders; first observing, then analyzing, then comparing and classifying the results of our observations and analyses, and repeat-

ing the same operations in the same order ; new observations leading to new comparisons and classifications, to an indefinite extent.

Skillful analysis and comparison are essential to a good observer. So that to be a good observer of phenomena, a man must be a skillful analyst of the phenomena he observes, and must be expert in instituting and conducting comparisons, having respect to the same, with a view to discover their points of resemblance and diversity.

The classification of material and spiritual objects and their phenomena, is prosecuted to some extent by all men. Children no sooner manifest the exercise of reason, than they exercise it in operations of this kind. The most rude and illiterate tribes and families of the human race, exercise their reasoning powers within the limited sphere of their observations and analysis, in the same modes of classification which are pursued in the highest schools of philosophy.

It is the province of philosophy to pursue the modes of reasoning natural to the human mind, to the greatest extent possible ; and to carry forward to their legitimate and remote results, many processes of investigation and discovery which are commenced by all men.

All men are observers of phenomena, but philosophers addict themselves especially to observation ; all analyze and compare the objects of their ideas to some extent, but philosophers do it to a much greater extent than others ; all classify and arrange the objects of their ideas according as they are similar or dissimilar from each other, and refer them to genera of higher and lower orders ; but the classifications of philosophy are carried to a much greater extent than those of the illiterate and uninformed.

The observation, analysis, comparison, and classification of moral actions, are analogous to those of other phenomena. Moral actions must first be observed and analyzed, then compared and classified. All actions which agree in certain generic properties, are distinguished from other voluntary actions, under the title of moral actions. Moral actions are of several different subordinate genera,

according as they are similar or dissimilar in different respects.

We ascertain the moral character of actions by judgment. We judge some actions and some series of acts to be morally good, and other actions and other series of acts to be morally evil.

The objects of elementary ideas of right and wrong, and all actions which we know to be of this character, serve as rules of judgment to assist us in determining the moral character of other moral actions. Having ascertained the moral character of particular acts and modes of action, we prosecute our judgments by comparing other actions with them, and judge the objects so compared to be good or evil, according as they agree or disagree with any ascertained rules of right and wrong.

The character and law of God are the highest ascertainable standards of this kind. We judge God to be good, and compare other beings with him as a standard of goodness. We judge his revealed law to be good, and make a similar use of that. Those actions which are in accordance with the revealed law of God, are good; and those which do not accord with it, are evil.

Any precept of the revealed law of God may serve as a rule of judgment, to assist us in determining the morality or immorality of actions thereby enforced or prohibited. By this means we may resolve many questions in morals, which we should be unable to resolve on general principles, and may arrive directly and without delay, at many important practical conclusions, which would otherwise require much time and study. The revealed law of God is of unspeakable value, considered merely in this point of view. It contributes greatly to facilitate many important ethical investigations, and brings many moral truths, of the highest consequence to our present and future well being, within the grasp of the human intellect, which would otherwise defy the most accurate and persevering inquiries of the most powerful and acute reasoners. It makes a large amount of ethical knowledge attainable by persons of ordinary abilities and opportunities, which would otherwise

have been confined to a few of the most gifted and favored of mankind.

The general circulation and use of the scriptures, in families, common schools, and every class of literary institutions, is highly important as a means of diffusing information on ethical subjects, and increasing the moral intelligence of mankind.

Erroneous classifications of moral actions arise from incorrect observations and analyses, and from hasty and inaccurate comparisons. In order to classify them correctly, we must first observe them accurately; then analyze and compare them with each other, and with approved standards of moral rectitude; and judge of their real character according to the results of such comparisons. Comparisons are in order to judgments respecting the similarity or dissimilarity, or other perceptible relations of things compared; or of judgments in respect to the particulars in which they agree and disagree, or are the subjects of other perceptible relations.

Accurate observations and scripture testimony, furnish premises from which many important inferences may be drawn, respecting the future consequences of actions which are not expressly stated in the scriptures, and which do not come within the sphere of observation. These ultimate ideas are pure deductions of reason.

The results of reasoning on moral actions are among the most important which we are capable of attaining. The capacity of forming ideas of actions as morally good or evil, and of reasoning upon them, are the distinguishing endowments of man, considered with respect to other intelligent beings which divide with him the inheritance of this world. They place the human family on an eminence far above that of the most intelligent and ingenious animals and insects; an eminence to which animals can never rise. It qualifies us more than all other attributes together, for high and happy fellowship with God and angels.

Moral actions are as legitimate objects of philosophical reasoning as any others. The most important questions respecting them, relate to their elements, or highest generic properties, and the different subordinate genera which they

appropriately constitute ; or the lower generic properties by which right and wrong actions of different subordinate genera are distinguished from each other.

Some degree of reasoning, on moral actions, is performed by all men. All have some ideas of voluntary actions, considered as right and wrong, morally good and evil. All are able to judge correctly respecting the moral character of many actions. The highest capacities of moral discernment and reasoning, however, require extensive knowledge and habits of accurate observation, analysis, and comparison.

Very good mathematical reasoners may be bad ethical reasoners ; and those who reason accurately in the various departments of physical and mental science, may fall into the greatest errors and absurdities respecting moral actions. Instances of this are not uncommon or anomalous.

Original philosophical discoveries, which are at first attained with difficulty, and only by minds of the highest order, may often be communicated and established with ease, to the conviction of ordinary minds.

Mathematical reasoning may subserve, in many ways, the discovery of philosophical truth. This is particularly the case in natural philosophy, astronomy, geography, and many other branches of science.

Philosophical genius denotes a superior capacity for philosophical reasoning, and may be either general or particular. One may have a genius for mechanical reasoning ; another for the observation and classification of physical phenomena and their subjective causes ; another for the observation and analysis of the phenomena of the mind ; and others for philosophical discovery generally.

All sane minds are capable of indefinite improvement in respect to this class of mental exercises, especially in the early part of their lives.

Mechanical inventions are a distinct and numerous class of philosophical discoveries, and are among the most valuable daily accumulating trophies of reason.

Written language is an important instrument of philosophical reasoning, and is indispensable to the preservation and communication of the same. By writing down our

conclusions, we can advance much farther than otherwise, and with proportionably greater precision and accuracy. That which we have written we can easily review and compare, either with other written or unwritten conclusions. Frequent reviews and comparisons are indispensably necessary, in all difficult and protracted investigations.

SECTION VI.

TESTIMONY.

Testimony is the declaration of a witness respecting phenomena; and relates to the phenomena of matter and mind. Any phenomenon is an appropriate object of testimony. Testimony is itself a phenomenon, sustaining the relation of an effect of other phenomena to which it refers as its objective causes.

The importance of testimony as a means of information respecting past and distant objects and events, and respecting all those phenomena which do not come within the spheres of our own consciousness and sensations, entitles it to our particular consideration.

The quality of testimony, considered as an evidence of the facts to which it relates, is denominated credibility. That which ought to be received as true, is denominated credible, and that which ought not to be received as true, incredible. The highest degree of credibility is denominated certainty. Testimony may be incredible, credible in some degree, and credible in the highest degree, or certain. It is of greater or less value, other things being equal, in proportion to the degree of its credibility. When it ceases to be credible in any degree, it is of no value as an evidence of the phenomena to which it appertains.

The credibility of testimony is, in all cases, a matter of judgment. We judge it to be credible in different degrees, and we judge it to be incredible. Different persons judge differently respecting particular testimonies, when all the appropriate grounds of judgment are not obvious;

but in multitudes of cases, and those of the greatest importance, the judgments of all men are substantially the same. There is as great an agreement between the judgments of different persons on this subject, as on most others.

Testimony may be true and not be credible ; and it may be credible in some degree, and not be true. To be credible in the highest degree, it must be true. It possesses this character in a multitude of interesting cases, in which it is the substantial basis of general and undoubting belief.

Testimony which possesses the highest degree of credibility, is as valid a ground of absolute judgments, as evidence of any other kind. Other testimony may serve as grounds of relative judgments, but they cannot serve as legitimate grounds of absolute ones.

Testimony is either original or derived.

Original oral testimony, is that of witnesses who profess to have observed the phenomena which they attest.

Derived testimony, is that which is professedly received by witnesses, directly or indirectly, from other witnesses.

Considered in respect to its form, testimony is either oral or written. Oral testimony is that which is spoken ; and written, that which is recorded by the witness. When oral testimony is recorded, the persons making the record, become witnesses, considered with respect to the testimony which they record and attest. Testimony which is given near the time of the phenomena to which it relates, is of higher authority than that which is given at a later period ; and considered merely with reference to the time of its delivery, the credibility of testimony is in proportion to its nearness, in respect to time, to the phenomena to which it relates.

When oral testimony is transmitted from one generation to another, without being made a subject of record, it is denominated traditional. Much important information is of this description.

The principal circumstances which affect the credibility of original testimony, given at proper times, may be comprehended under the following heads :

1. The nature of the phenomena attested;
2. The character and number of witnesses;
3. The responsibility of the witnesses;
4. The purpose and design of testimony;
5. The agreement or disagreement of testimony with itself, and with other truths.

1. The nature of the phenomena attested.

Some phenomena are of common occurrence; others are uncommon; and some are easily distinguished; and others incapable of being certainly known, without the greatest care and skill.

Phenomena which are most uncommon, require the greatest amount of evidence to attest their occurrence; and those which are most common, the least.

Witnesses who testify concerning phenomena, in respect to which they were liable in any degree to have been deceived, are required to show that they used the care and attention requisite to arrive at the truth, in order to make their testimony, respecting such phenomena, in the highest degree credible. Allowance is always to be made in estimating testimony for probable, and in some degree, for possible errors and mistakes in the observer and witness.

Impossibilities and absurdities cannot be made credible by testimony of any kind or degree.

2. The character and number of witnesses.

Some facts may be fully substantiated by witnesses of almost any character, who possess common sense; especially if they testify in sufficient numbers. But in many cases, testimony is more or less credible, according to the intelligence and discernment of the witness; and in most cases it is more or less so, according as his moral character is good or bad.

The testimony of persons of known integrity and veracity, is often the object of confident reliance, when perfectly similar testimony, given by persons known to be immoral and dishonest, would not be regarded as in any degree credible. The credibility of testimony, other things being equal, is in the ratio of the known integrity and honesty of the witness.

The number of witnesses who concur in testifying to the same facts, increases the credibility of all the parts of the testimony in which they concur. When this testimony is given without any concert among the witnesses, and is found to agree in several important particulars, and not to disagree in any that are essential, its credibility is thereby greatly increased.

3. The responsibility of the witnesses.

Responsibilities are of different kinds. They all involve known liabilities to injuries, on the part of witnesses, in cases of their having testified falsely. Loss of character, property, and of the Divine favor, are of this description. Responsible testimony is more credible than that which is not responsible; and its credibility, other things being equal, is proportionable to the responsibility of the witnesses.

The prospect of good and evil, as the consequence of being known to have testified correctly or incorrectly, is one of the principal producing causes of correct testimony. The principal rewards of testifying correctly, are the favor of men and God, enjoyed by faithful witnesses, in consequence of having testified correctly. Veracity is honorable and advantageous, in many respects, to members of civil society; and the benefits which it confers, are strong inducements to the exercise of it.

False testimony is in many ways prejudicial to those who bear it, by exposing them to the displeasure and contempt of their fellow-men, and to the still more dreadful displeasure of God, and to Divine punishments.

The civil and social responsibilities of witnesses, comprehend those rewards and punishments which are administered by mankind. Other things being equal, liability to social and civil punishment for false testimony, is proportionable to the liability of false testimony to be detected. Where great penalties are incurred by false testimony, and ample means are enjoined to detect it, sensible persons are not likely to testify falsely, whether they have any sense of their responsibility to God, and their exposure to punishment from the administration of his government, or not.

4. The purpose and design of testimony.

Where persons have an interest of any kind in having the objects of their testimony believed, that testimony is proportionably less credible. On this ground, persons are not allowed, in courts of justice, to testify in cases where they are interested. Persons may testify falsely, to gain property, honor, or power; to punish an enemy, and even to gratify a friend. The manifest absence of any motives of this kind, increases the credibility of testimony; and their presence may render it less credible than it would otherwise be, and in many cases incredible. When a regard for truth and righteousness is the obvious purpose and design for which testimony is given, its credibility is thereby greatly increased.

5. The agreement or disagreement of testimony with itself and other truths.

Testimony that disagrees with itself in any important respects, is proportionably less credible. The same is true of that which disagrees with other known truths. In cases where testimony relates to several particulars, and all the parts of it are consistent with each other, its credibility is thereby proportionably increased. The same is true of the conformity of the facts attested with other known truths. The credibility arising from this source, is greatly increased, when the agreement of the facts attested with other known truths, was not apprehended by the witness.

We are indebted to testimony for a large and important part of our knowledge. It furnishes us with a great number of important facts, illustrative of the principles of Chemistry, Natural Philosophy, and Astronomy, &c. Of this nature are all the accounts of observations and experiments, which are contained in the writings of scientific men, or which are orally communicated by them.

Every branch of science, with the exception of pure mathematics, embraces phenomena which we receive as true on the evidence of testimony.

History, however, is the field of knowledge, in which this class of evidences are the chief, and almost the sole foundations of belief. Historical truth is, in many cases,

as certain as mathematical. Human testimony is an adequate basis for the belief of facts which transpired thousands of years ago. It gives to many of the phenomena of distant countries, and remote antiquity, all the certainty of those which transpired immediately previous to our own age, and in immediate contiguity to the sphere of our own observation.

Testimony is one of the main pillars of philosophy. It enables us to avail ourselves of the observations of others in every department of philosophical investigation, and to prosecute our inquiries immeasurably farther than would otherwise be possible.

The facts attested by others, may often be of great use to us, when their theories respecting them are entirely and obviously erroneous. In availing ourselves of testimony, it is necessary to distinguish carefully between the facts observed, and the inferences drawn from them by the observer. Inferences and conclusions respecting phenomena, are not the phenomena themselves, and may be entirely erroneous, when the phenomena to which they relate are correctly narrated.

SECTION VII.

REASON, COMMON SENSE, AND CONSCIENCE.

1. Reason.

Reason is applied extensively to denote the faculty of ideas, considered as embracing only judgments and cognitions. All exercises of judgment and cognition are distinguished from other mental exercises, and referred to a common generic faculty. Judgments and cognitions are the exercises of this faculty. By them, and by them, alone, it is revealed. The exclusive subject of these exercises is the mind. The mind judges and knows. Reason, therefore, is not a substance or being of any kind different from the mind, but is the mind itself, considered as the subject of certain exercises. The mind is that which

reasons ; and the acts which constitute its reasoning, consist of judgments and cognitions. Reason, therefore, is the mind, considered as the subject of judgments and cognitions ; or the power of judging and knowing, considered as an endowment of the mind.

This capacity belongs, in some degree, to men and animals. All beings which are capable of sensations, are capable of drawing certain inferences from their sensations, and of forming rational ideas. The final end of sensations is the production of corresponding ideas. Human sensations lead to human ideas of sensible objects, animal sensations to animal ideas of sensible objects. Men are the subjects of judgments and cognitions within extended spheres of thought ; animals within limited ones. Human reason bears the same relation to human ideality, which animal reason does to animal ideality.

It is the policy of the Divine government to promote the exercise both of human and animal reason to the greatest possible extent. Animals and insects are placed in circumstances which imperiously demand the exercise of what reason they have. Every day and hour brings them occasions for some new or repeated exercises of this kind. Night and day, sunshine and storm, summer and winter, all afford peculiar occasions for the exercise of animal reason, by innumerable animal and insect tribes.

Man is laid under necessities for reasoning proportionable to his endowments. As much as his rational endowments exceed those of animals and insects, so much do his necessities exceed theirs. His long and helpless infancy ; his unprotected and tender body ; his liability to injury from thousands of causes which are not injurious to animals ; his greater dependence on his skill and labor for food, clothing, habitations, and protection ; together with his higher susceptibilities of emotion and affection from the objects of his ideas, create necessities for reasoning, and for the attainment of rational ideas, which belong to no other class of terrestrial beings. These necessities are not in vain. They accomplish their appropriate ends in securing the unremitting exercise of human reason from

the earliest periods of infancy, till the last spark of life is extinguished in declining years.

The lowest orders of animals possess some degree of reason; animals of higher orders possess higher degrees of it; and man the highest degrees of it. The intellectual endowments of different orders of animals are widely different, considered with respect to their extent.

A similar diversity prevails in respect to the rational endowments of species which belong to the same genera, and of individuals which belong to the same species. All the species which belong to the same genus, are not equally intelligent; neither are all the individuals which belong to the same species.

The dispensation of human reason is analogous to that of animals. Some varieties of the human race are evidently more gifted in this respect, as a general rule, than others. The same is true of individuals.

All men possess, in common, those rational endowments which are necessary to the attainment of ideas of spiritual beings as the exclusive subjects of mental phenomena; those which are necessary to the attainment of ideas of material beings as the exclusive subjects of the phenomena of matter; and also those which are necessary to the attainment of ideas of moral actions. These capacities are peculiar to man, and give human reason a vast superiority to that of the noblest animals. While all men possess these endowments in common with each other, and in distinction from all the animal and insect tribes, they possess these and other rational powers in different degrees of strength.

2. Common sense.

That degree of capacities to reason which is necessary to enable persons to take proper care of themselves, and which is enjoyed by the great mass of the human family, is denominated common sense. Higher degrees of reason constitute genius; and lower degrees of it constitute all the different mental conditions between common sense and absolute idiocy, or incapacity for the attainment of rational ideas peculiar to men.

That degree of capacity for the exercise of judgments and cognitions, which is common to the mass of mankind, is common sense; those degrees of this capacity which exceed what are allowed to the mass of mankind, is superior to common sense; and those degrees of it which fall short of what is allowed to the mass of mankind, are inferior to common sense. Common sense, therefore, is equivalent to common reason, and denotes those capacities of judgment and cognition which are common to the great mass of mankind.

Those who are endowed merely with common sense, are distinguished from two other orders of human beings: those who are endowed with more than common sense, and those who have less. A few have less than common sense; a large proportion of the human race have common sense; and some have more than common. Those capacities of judgment and cognition which are given to the great mass of mankind, serve as a standard of comparison, according to which to estimate the endowments of others as greater or less.

Common sense, or that capacity for the exercise of judgments and cognitions which is common to the mass of mankind, is the same in kind as superior or inferior capacities for similar exercises. Some parts of the field of knowledge are capable of being surveyed by all. Those who have less than common sense, can know something; those who have common sense, can know all that is capable of being known by those of inferior rational endowments; those who have more than common sense, can know all that is capable of being known by the two orders inferior to them; and those of this order who have the highest endowments, can know all that is capable of being known by others of the same order, and of both the inferior orders together. Each superior order of intellect qualifies its possessor to know all that can be known by those of inferior orders, and something more.

The four conditions for the attainment of knowledge, are:

1. Capacities;
2. Means of information;

3. Application ;

4. Time.

The knowledge of different individuals is in proportion to their capacities, their means of information, their application, and the times during which they have prosecuted particular studies. Each of the other conditions being equal, it will be proportionable : (1.) to their capacities ; (2.) to their means of information ; (3.) to their application ; or (4.) to the times during which they have pursued particular studies. Persons of inferior capacities may excel those who are greatly their superiors in that respect, in consequence of greater advantages for information, greater application, or the prosecution of their studies for longer times.

The great mass of human knowledge is attainable by all who possess common sense. Persons of superior rational endowments, may attain it more rapidly and easily than others ; but all can attain it with sufficient advantages, application, and time.

Another signification of common sense, nearly allied to the former, is derived from the objects on which human reason is chiefly employed. According to this usage, common sense denotes a capacity to reason on matters which belong to the usual and almost daily experience of mankind. Every day's experience presents numerous occasions for the exercise of judgment, in determining the nature and relations of various objects ; and in ascertaining, from time to time, those ends which are in some degree desirable, and in what degree they are desirable ; and also in devising means to secure the ends of our choice.

Those who fall considerably below the ordinary standard of ability for reasoning on subjects pertaining to the common affairs of life, are said to be destitute of common sense. Many who are not considered destitute of common sense, are manifestly far inferior in the amount, promptness, and accuracy of their judgments on common affairs, to others of only common advantages for information and improvement. Persons of superior abilities for reasoning on common affairs, are sometimes said to have a great deal of common sense ; and those of inferior abil-

ties but little. Different persons are also often and correctly described, in relation to this feature of their characters, as having good judgment, and poor; and prompt judgment, and slow. Some are distinguished for a capacity of judging with promptness and accuracy, respecting the nature and qualities of objects and ends, and the means proper for their attainment. Others are equally notorious for incapacity of judgment in these respects.

It sometimes happens, that persons of considerable learning and information are far inferior in judgment to the most illiterate and uninformed.

The capacity to reason well on common objects, is a specific attainment, which must be secured by exercise. Those who wish to excel as mathematical reasoners, must accustom themselves to reason accurately and continuously on mathematical subjects; those who wish to excel as philosophical and moral reasoners, must pursue a similar course in respect to philosophical and moral subjects. On the same principle, those who wish to acquire the capacity of judging promptly and accurately on common affairs, must accustom themselves to the frequent, vigorous, and accurate exercise of this faculty on the same. Some persons reason much more, and with much more accuracy and precision, on the objects with which they are conversant in business or pleasure, than others, and attain by that means, proportionably greater capacities for reasonings of this kind.

In order to form correct judgments in any department of investigation, it is necessary to obtain distinct and accurate ideas of the matter or object concerning which our judgment is to be formed. Having obtained definite ideas of this matter or object, we ought next to consider and compare the legitimate grounds of different conceivable judgments, carefully excluding from the premises every foreign element. On the proper consideration and comparison of the grounds of different conceivable judgments, and the careful exclusion of foreign elements from the premises, very much depends.

If we do not take all the legitimate grounds of judgment into consideration, we shall be liable to judge incor-

rectly, on account of that deficiency in the premises; if we take them all into consideration, but do not consider some of them with sufficient attention to ascertain their due weight, we shall be liable to judge erroneously, on account of that deficiency of consideration; if we admit in our premises or grounds of judgment, one or more foreign elements, that is, considerations which do not legitimately relate to the case in hand, and which ought not to have any influence in determining our judgments, we shall be liable to judge erroneously, on account of that addition to the legitimate premises.

By either of the causes above mentioned, our reasonings may be embarrassed, and the formation of our judgments retarded, in cases where we are not prevented from ultimately forming correct judgments.

3. Conscience.

The capacity to reason on moral subjects, is usually distinguished from the general faculty of reason, under the title of conscience. Moral reasoning embraces a part only of the wide field of knowledge; and conscience denotes the faculty of judgment and cognition, considered only with respect to those exercises which relate to moral actions and agents. The same mind judges actions to be voluntary and involuntary, useful and injurious, and right and wrong.

Considered merely as mental exercises, these different judgments are similar, and consist of inferences deduced from certain grounds of inference, or conclusions from certain premises. The qualities of moral actions are as legitimate objects of reasoning, as those of actions which have no moral character.

Common sense embraces some capacity to reason on moral subjects. Persons of mature age, who are incapable of distinguishing between actions as right or wrong, and of reasoning upon them as such, are not endued with common sense. Brutes are destitute of those higher capacities of judgment and cognition, which are common to the great mass of mankind. They have the capacities of reasoning to some extent, on quantity, time, number, and causality; but have no ideas of voluntary actions, consid-

ered as right or wrong, and no capacities to reason on moral subjects.

Conscience is not co-ordinate with reason, but is included under it, and is co-ordinate with the human faculties of reasoning on quantity, number, and causality, just as each of those faculties is co-ordinate with the others; all together constituting the generic faculty of reasoning, which is a general endowment of individuals of the human race.

PART THIRD.

THE PHILOSOPHY OF THE EMOTIONS, AFFECTIONS, DESires, AND WILL.

CHAPTER I.

THE PHILOSOPHY OF THE EMOTIONS.

SECTION I.

THE GENERIC PROPERTIES AND ORDERS OF THE EMOTIONS.

Sensations lead to ideas, and ideas to emotions. Emotions depend on ideas, as their immediate concurring causes. The objects of the ideas which produce them, are generally denominated the objects of the emotions, which they concur in producing. They sustain this relation, however, only as the immediate objects of emotion-producing ideas, and have no relation to emotions, except through the medium of ideas.

Emotions are entirely distinct from their exciting ideas, and sustain a relation to them similar to that of ideas of sensible objects to sensations. Sensations lead to ideas of sensible objects, and ideas of every kind lead to emotions. The mind first exercises ideas, then emotions corresponding to them, and depending upon them as concurring causes.

The properties of emotions are quality and quantity. Considered in respect to their quality, they are either pleasurable or painful; in respect to their quantity, more or less intensive and protracted.

Emotions are the attendants of ideas which excite them, but do not continue after their exciting ideas are dismissed. They are not the necessary or universal effects

of emotion-producing ideas; but always occur in connection with them, and only while they are in exercise. Particular emotions may commence and terminate during any part of the period in which their exciting ideas are in exercise. But they do not necessarily commence when their exciting ideas begin to be exercised, nor continue till they cease. Emotion-producing ideas, therefore, are not the exclusive objective causes of emotions; for they do not produce them universally. Their relation to the emotions, which they exercise a concurring agency in producing, is similar to that of organic impressions to sensations. Organic impressions are the essential conditions and concurring causes of sensations, but do not produce them uniformly and invariably; and in the same manner, emotion-producing ideas are the essential conditions and concurring causes of emotions.

We cannot have emotions without ideas of emotion-producing objects, but we may have ideas of such objects, without having emotions.

Besides the reduction of emotions to two generic orders, according as they are pleasurable or displeasurable, they may be resolved into several orders, according to the nature of their general and specific objects.

The following are particularly important and interesting:

1. Emotions which relate to new or familiar objects.

Delight in objects, considered as new, is universal. We begin to experience it in early childhood, and continue to experience it on numerous occasions, till the latest periods of life. Children are delighted with new toys, new books, new garments, and new diversions and amusements. When an object ceases to be new, it loses, to them, half its attractions.

The same is true, to a great extent, with men in every period of life. The newness of almost any object, enhances its value in our esteem. This is the case with new discourses, new poems, new tunes, new modes and articles of dress, furniture, or equipage, and with new objects generally.

Surprise at what is unexpected, depends, in part, upon the emotions which relate to novelty. We generally speak of being pleased with what is new; sometimes, of being surprised at it. New objects may excite various pleasurable or painful emotions, corresponding to their nature and relations, besides those which relate to their novelty.

Objects continue to be new only for a short time. They therefore soon cease to awaken the emotions which they first excited, in consequence of their novelty. Novelty serves as a charm to encourage and reward the acquisition of knowledge, and of other useful objects. When those objects become familiar, the charm of novelty ceases. They may always interest, as beautiful, sublime, useful, &c., but they cannot always interest us as new.

While we are capable of being pleased with objects, considered as new, we are also, in many cases, capable of being displeased with them, considered as trite or common. This displeasure is felt towards old and often repeated discourses, often read poems, often repeated tunes, old fashions in dress, furniture, &c.

The capacity of being pleased with objects as new, renders us susceptible of many pleasures, which are not possible by other means. Displeasure, with objects considered as trite or common, serves a useful purpose, in preventing us from being too much occupied with them. Both together contribute powerfully to excite affections and desires, which lead to the acquisition of useful knowledge, and of other useful objects.

The appropriate spheres of novelty and triteness are limited. Many objects can never please by their novelty, and many others can never displease by their commonness. Many objects have such capabilities of delighting us by their beauty, sublimity, utility, moral goodness, &c., that we never become tired of contemplating them; and others are so displeasing by their deformity, injurious effects, depravity, and misery, that we never can be pleased with contemplating them.

A capacity of being pleased with novelty, and displeased with commonness or triteness, is capable of being

greatly modified by experience and education. Some possess it in much greater degrees than others, and the cultivation of it may be carried to a very great extent, beyond what is usual to the uncultivated.

2. Emotions which relate to beautiful or deformed objects.

In its primary application, beauty denotes those qualities of visible objects which render them pleasing; and relates chiefly to forms, colors, and arrangements. Visible objects may be beautiful in these respects. Almost all visible objects are in some degree beautiful. This is the case with trees, plants, flowers, animals, insects, and minerals. Not a tree can be found among millions, not a plant or flower, not an animal or insect, and not a mineral which has not some beauty, considered as an object of sight. Trees and plants are beautiful in their cylindrical and conical forms, and in the orderly arrangement and collocation of their different parts, particularly their roots and branches.

Animals and insects are beautiful in their endless diversity of globular, elliptical, and cylindrical forms, and in the due arrangement and proportion of their different limbs and organs. Many of them have numerous super-added beauties of color and expression.

Minerals are beautiful in their forms and colors. This is particularly the case with those which exist in regular chrysaline forms, and those which are wrought into regular forms for ornament or use, by human skill and labor. Right and curved lines are beautiful; and graceful motions and gestures, such as are used by men in impassioned discourse, and in walking, riding, and other exercises, possess a kind of beauty similar to that of right and curved lines.

The conception of objects as beautiful, is analogous to that which relates to them as visible or tangible. Beauty, equally with sight and touch, depends on mental susceptibilities. There is no sight without an eye, and no touch without a tactful organ; so there is properly no beauty without a capacity to feel it, as a consequence or concomitant of ideas. The tangibility of objects is their capacity

to excite the sensations of touch ; their visibility, their capacity to excite sensations of color ; and their beauty, their corresponding capacity to excite emotions of beauty.

Beauty is not limited to objects of sight. It belongs equally to those of hearing. Conversational and musical sounds, the sounds of musical instruments, and of birds, and many other varieties of sounds, excite pleasurable feelings, similar to those which relate to beautiful colors, forms, and arrangements ; and are consequently denominated beautiful. Beautiful modes of speech, and beautiful tunes, are common objects of attention and remark, and sources of many refined pleasures.

The objects of the senses of taste and smell, are not generally considered as beautiful or otherwise. They are generally conceived of as agreeable or disagreeable, and excite agreeable or disagreeable emotions, which are in some degree similar to those of beauty and deformity. The agreeableness or disagreeableness of the objects of taste and smell, are analogous to the beauty and unpleasantness of the objects of sight, touch, and hearing.

Beauty is of two kinds, natural and artificial. The beauty of natural objects, such as trees, plants, flowers, fruits, animals, insects, birds, minerals, &c, is natural. It is doubtless the effect of design on the part of God ; but it is not the effect of human contrivance or of human workmanship.

The beauty of the products of human workmanship is artificial. It is the object of design on the part of man, and the direct effect of human agency. Houses, articles of apparel and furniture, paintings, statues, &c., are of this description.

The natural world is full of beauty of various kinds and degrees. The starry heavens ; the verdant landscape in spring ; the same covered with the fruits of summer, and fading under the gradually increasing coldness and frosts of autumn ; the human form, erect with its just proportions, fair complexion, beaming eyes, and countenance expressive of all the varieties of thought and feeling, are unspeakably beautiful.

Ideas of beautiful objects are adapted to excite the

emotions which relate to them as beautiful. All, however, do not experience these emotions in the same degrees, from the contemplation of particular objects; neither do the same persons experience them in the same degrees at all times. The same landscapes, the same persons, and the same animals or insects, appear far more beautiful to some than to others, and to the same persons at different times. Persons may be conversant with objects of the greatest beauty, and yet be but little affected by it.

Knowledge, attention, discrimination, and comparison, are necessary to a full sense and just appreciation of beauty, both in its lighter shades and colorings, and in its most obvious and striking manifestations.

A sense of the beautiful is the basis of the love of objects considered as beautiful, and of desires for the enjoyment of them. The delight we derive from viewing and contemplating particular beautiful objects, leads us to love them and to desire the possession and enjoyment of them, and of similar objects.

3. Emotions which relate to sublime objects.

In its primary application, sublimity denotes those qualities of tangible, visible, and audible objects, which excite strong and pleasurable emotions, analogous to those of beauty, but of a higher order. It relates to objects considered as possessing great extent, especially great height or depth, and as operating with great power. The evening sky, viewed with a proper estimate of the position, magnitudes, and motions of its numerous bodies; lofty mountains; deep ravines; mighty rivers; great cataracts; earthquakes; hurricanes; the sea at all times, especially when agitated with storms, are objects of great sublimity.

Great fortitude and courage, and great exploits of every kind, excite emotions which are denominated the moral sublime. History records many sublime achievements and exertions; and describes many individuals who may be considered as being of this character. Such are the achievements and characters of Moses, Elijah, and Paul, in sacred history; and those of Alexander, Cæsar, Bonaparte, Isaac Newton, Milton, and Walter Scott. God is a being of the greatest conceivable sublimity, and is an object of the highest possible veneration as such.

4. Emotions which relate to ludicrous objects.

Objects are denominated ludicrous, which are adapted to excite laughter, or to serve as occasions for amusement. We may laugh under the influence of emotions excited by novelty or beauty, or by novelty and beauty combined. Most objects which excite laughter, have some degrees both of beauty and novelty.

The distinguishing element of the ludicrous, is incongruity, or the association of the beautiful with the novel and incongruous. A variety of objects and events are characterized by ludicrous combinations. A superior capacity to discover and express them, is denominated wit.

Laughter is a spasmodic affection, produced by emotions relating to the ludicrous. The susceptibility of this affection, is one of the peculiar endowments of man, and is subservient to useful purposes. Some possess it in higher degrees than others, and all are capable of increasing, or diminishing, improving, or impairing it, by judicious or injudicious exercise.

The reasonable exercise of the emotions which relate to the ludicrous, and the expression of them by moderate laughter, is both natural and useful. Their too frequent and too long continued exercise, are injurious in diverting our attention too much from emotions of higher orders, and of a more grave character.

5. Emotions which relate to happy or miserable objects.

Happiness and misery are distinct objects of thought, from an early period of our lives. Some instances and degrees of both are almost constantly before us. They enter into the experience of all conscious beings of this world, from the smallest insect to the largest and noblest animals.

The contemplation of happiness is pleasing, and that of misery or unhappiness, unpleasant. This is true in respect to the lowest orders of creatures. We are capable of being delighted with the happiness of insects, birds, and domestic animals. Instances of this delight are common in the experience of all. So, on the other hand, we are capable of experiencing unpleasant emotions, in view

of the distress of animals; and cannot, in ordinary cases, witness their sufferings, without being deeply affected.

This susceptibility is still greater, in respect to the happiness and misery of men. Human happiness is a direct object of pleasure, and human suffering, of pain. We take delight in the delight experienced by others, and are distressed in view of their distress.

Emotions of this class enter largely into our experience, in the earliest periods of intelligence and feeling; and we continue to exercise them on different occasions, and in different degrees, as long as reason and sensibility continue.

Sympathy is an appellation which is often applied to denote the class of emotions now under consideration. We sympathize with the distressed, when we experience painful emotions, in view of their distress, or are distressed ourselves on account of it. So we sympathize with the happy, when we experience pleasurable emotions, in view of their happiness, or are happy on account of it. Persons have more or less sympathy, according as they are more or less pleased or pained with the happiness or misery of others.

This class of susceptibilities is universal. No human being can be entirely destitute of them. Some possess them in higher degrees than others, and all are capable of improving and impairing them, by judicious or injudicious exercise. Children are extremely sympathetic. They are easily and greatly pleased with the happiness of others, and experience intense painful emotions, in view of the signs of considerable distress. Older persons often acquire the habit of contemplating the occasions and signs of both of happiness and misery, in the experience of others, with little or no emotion.

6. Emotions which relate to moral actions.

Moral actions are the appropriate objects both of pleasurable and displeasurable emotions. Right moral actions excite pleasurable emotions, and wrong moral actions, displeasurable ones. A capacity of being pleased with actions, considered as morally good, is common to all men. In order to have these emotions, we must have

ideas of actions, considered as morally good and evil. Ideas of morally good actions are adapted to excite pleasing emotions; and ideas of morally evil actions, painful emotions. The connection between these ideas, and their corresponding emotions, is similar to that between ideas of the beautiful and sublime, and their corresponding emotions.

Moral actions are numerous and diversified. They are the appropriate objects of daily and hourly attention, and consequently of daily and hourly emotions. When we consider them merely as voluntary actions, without connecting with them ideas of their agents as moral agents in the performance of them, we may experience emotions from ideas of them, as useful or injurious; as promotive of happiness, or destructive of it; but not as morally good or evil. In order to have emotions from the contemplation of moral actions as such, we must contemplate them as the actions of moral agents.

The same actions may excite different, and in many cases, opposite emotions, considered in relation to different properties. Ideas of them merely as useful or injurious, are attended with pleasurable and painful emotions, which relate to them as the objects of these ideas. All actions may be viewed simply as possessing these properties, and thus become the objects of corresponding pleasurable or painful emotions.

Ideas of actions as morally good, relate to them as the actions of moral agents, and as being performed with a view to promote directly their own happiness, and indirectly that of other beings; or directly the happiness of other beings, and indirectly their own happiness. In these actions there are two elements, which are adapted to excite pleasurable emotions:

(1.) An adaptation to promote the happiness of the agents and other beings;

(2.) An intention to promote both these ends, or to promote either, in consistency with the other.

The former of these elements is common to the actions of moral agents, and to many of those which are performed by voluntary beings, not endowed with powers of

moral agency. The latter is peculiar to the actions of moral agents, and is common to all right actions.

The elements of morally evil actions are;

(1.) An adaptation to destroy the happiness of the agents and other beings; that of the former directly, and of the latter indirectly; or that of the latter directly, and that of the former indirectly;

(2.) An intention to secure the happiness of the agent, by methods inconsistent with the greatest happiness of other beings.

The former of these elements is common to the actions of moral agents, and to many which are performed by voluntary beings, not endowed with powers of moral agency. The latter are peculiar to the actions of moral agents, and common to all morally evil actions.

The most perfect exercise of emotions relating to morally evil actions, require ideas of such actions as being performed by subjects of the righteous moral government of God; in violation of his righteous laws; in opposition to his holy will; and to the injury of the universe, of which he is the glorious head.

Similar ideas of morally good actions are necessary, in order to our attaining the pleasurable emotions in view of them, which they are adapted to excite. A knowledge of the perfect moral government of God, is the essential condition, both of adequate conceptions of actions as right and wrong, and of the pleasurable and painful emotions which depend on such conceptions.

The same action may excite opposite emotions, when contemplated merely as a voluntary or physical action, and when contemplated as a moral action. Considered as a voluntary or physical action, without any respect to its moral character, it may be highly pleasing; when considered as a moral action, it is still more displeasing. There is a difference in this respect, between the emotions with which we regard the actions of beings not moral agents, and those of men.

Where morally good actions are obviously useful, ideas of their usefulness unite with those of their moral goodness, in producing cotemporaneous pleasurable emotions.

When morally evil actions are useful in some respects, they are the objects of pleasurable emotions, considered as useful; and of displeasurable emotions, considered as morally evil. When morally good actions are injurious in some respects, they excite pleasurable emotions, considered as morally good, and painful emotions considered as injurious.

8. Anger and gratitude.

Anger denotes painful emotions which attend ideas of voluntary actions, considered as intentional injuries to ourselves or others. Ideas of voluntary actions, considered as injurious, are necessary concurring causes of this class of emotions. Without such ideas we never could be angry. Anger is common to men and animals. High degrees of it are generally distinguished from others, by the title of indignation. All anger is painful, and high degrees of it extremely so.

Anger is attended with desires of relief from the injury by which it is excited, arising from ideas of it considered merely as an injury; and frequently with desires of unhappiness of some kind to the injurer, considered as the voluntary cause of the injury. When an injury is manifestly criminal, it excites anger as an intentional injury, and cotemporaneous displeasurable emotions considered as a crime.

Anger is wrong when it is excited by imaginary injuries, or in degrees disproportionate to real ones. When it is excited by real injuries, and in degrees proportionable to them, it is useful; and in the case of moral beings, right.

Gratitude is the opposite of anger, and is as pleasurable as that is painful. The objects of gratitude are intentional benefits. When these are conferred by moral beings, they excite pleasurable emotions considered as morally good, in addition to those which they excite considered merely as useful.

The occasions of anger and gratitude are both frequent, and those of the latter innumerable.

9. Regret and gladness.

Past events, considered merely as injurious or beneficial, either to ourselves or others, are the objects of peculiar emotions, denominated regret and gladness. We regret past injuries, and are glad on account of past benefits.

The principal varieties of regret are sorrow for pecuniary losses ; grief for the loss of friends ; and remorse for sin. Losses of every kind, contemplated as real losses, excite sorrow ; the death of friends excites grief ; and past sins of every kind excite remorse. It is as natural to feel remorse for past sins, whenever we have adequate ideas of them as moral wrongs, as it is to feel sorrow for the loss of property, or grief for the loss of friends.

All the varieties of regret have corresponding opposite varieties of gladness.

Shame is nearly allied to regret, and relates to real or supposed violations of decency and propriety.

SECTION II.

THE CAPACITY OF EXPERIENCING EMOTIONS.

Capacities of emotion are essential parts of human nature. The possession of them is universal. They are, in this respect, like the senses and the ideal faculty. No man is entirely destitute of sensations or ideas ; neither can any be entirely destitute of emotions. The capacity of emotions is capable of different degrees of strength and delicacy, like those of sensations and ideas. The emotions of some are much more intense than those of others. Ideas which excite strong emotions in some minds, excite feeble ones, or none at all, in others ; and those which excite pleasurable emotions in some minds, excite in others only such as are unpleasant. Thus one is often highly pleased or displeased, when another experiences those emotions either in a slight degree or not at all ; and when others still experience emotions of a directly opposite character.

Certain capacities of emotion are given us at the commencement of our rational existence. These are, doubt-

less, different in some respects in different persons; but similar in all those respects which are essential. Like the original capacities of sensation and of ideas, they are capable of being greatly modified by exercise; of being improved or impaired in different degrees; and in some cases, entirely destroyed. The preservation and improvement of this class of our faculties, is an object of the highest consequence to our dignity and happiness. The emotions are of the nature of capital, to be used and increased by lawful and appropriate use; but liable to decay by disuse, and to be destroyed and lost by improper and injudicious investments.

The capacities of emotion lose their susceptibility;

1. By disuse or want of exercise;
2. By improper use or inappropriate exercises; and may be improved and strengthened by appropriate exercises.

Thus we commence our rational existence with certain capacities of being pleased with beautiful forms, colors, arrangements, and proportions. Our first exercise of these capacities is involuntary. Beautiful forms, colors, &c., are discovered, and their beauty felt. Having experienced emotions of beauty from ideas of particular visible objects, we are capable of viewing and considering those objects for the purpose of again exciting and of protracting the emotions which we experience from them.

We are also capable of investigating other similar objects, for the purpose of gaining similar emotions from ideas of them. Such investigations, wisely and deliberately conducted, bring our capacities of emotion into constant exercise, and tend to increase their susceptibility, both in respect to delicacy and strength. We have a wide field for the exercise and improvement of our capacities of emotion, in the investigation of objects for the purpose of ascertaining what emotions they are adapted to excite; still more, in pursuing the contemplation of such objects as are pleasurable, with a view to attain and protract the pleasure they are adapted to afford.

By the continual and repeated contemplation of beautiful objects, we improve our capacities of experiencing

emotions from ideas of the beautiful; by the continual and repeated discovery of new objects, we increase our susceptibility of pleasure from novelty; by the continual and repeated study and consideration of happiness and misery, moral goodness and depravity, and other objects of emotion, as they are met with in the world, we increase our susceptibilities of emotion from the contemplation of the same and similar objects.

The emotions occupy and require time. We must retain the ideas adapted to excite them during some perceptible portion of time, in order to experience the emotions which they are adapted to excite. Emotion-producing ideas are often attained and lost, before the emotions which they are capable of exciting are half developed; often before their development commences.

Ideas may fail to produce proper emotions, on account of being associated improperly with other ideas adapted to produce emotions of different or opposite kinds. Objects may be adapted to excite very different emotions, according as they are contemplated absolutely, or in particular associations and relations. The idea of pain, for example, considered absolutely, is unpleasant; but the idea of it, considered as indicative of improved physical action, or of other beneficial operations, is pleasurable. The idea, however, of pain, considered absolutely, is very different from that of the same, considered as indicative of a sanitive process, or of other beneficial operations. The latter possesses elements which do not belong to the former, and which are the immediate and real causes of the attending pleasure.

The pleasurable or painful character of ideas, is affected by association, very much as the chemical and mechanical properties of matter are affected by chemical combinations. In a state of combination with other substances, bodies lose their primitive properties, and acquire others of an entirely different character. Compound bodies possess properties very different from those of their component elements. Thus the properties of water are very different from those of oxygen and hydrogen; and those of sulphuric acid, very different from those of sul-

phur and oxygen. So complex and associated ideas possess properties considered as causes of emotions, very different from those of their component elements.

Different associations and combinations of ideas, in contemporaneous and successive trains of thought, are adapted to excite different corresponding emotions. Simple ideas are attended with certain emotions; complex ideas, with others; and combinations of contemporaneous and successive ideas, with others still.

Every variety of sensation enlarges the sphere of our perceptions; so every variety of simple and complex ideas, and every variety of arrangement in which they occur, enlarges the sphere and variety of our emotions.

Different emotions may co-exist as the effect of different contemporaneous ideas. This often occurs in the case of novelty, beauty, and sublimity, and in that of most other classes of the emotions.

Co-existing emotions coalesce and constitute a single, indivisible state of emotion, either pleasurable or painful, according as the emotions of which they consist are on the whole pleasurable or painful. Successive states of emotion may be greatly diversified, according to the successive ideas by which they are produced, and according as the same ideas produce their effects more or less perfectly.

The course of the emotions corresponds with that of the ideas. Habits of inattention and thoughtlessness, lead to very different kinds and degrees of emotions, from those of vigorous and continual study; the study and consideration of one class of objects, to very different emotions from those which attend the study of other objects, and other classes of objects; and so on.

The power we have over our emotions and our capacities of experiencing emotions of different kinds, both pleasurable and painful, is limited. We are susceptible only of emotions of certain kinds, and from certain objects, considered as objects and causes of ideas. We can have only the emotions that we are capable of; no others; and we can attain them by no means, but by ideas of certain objects, which are themselves to be attained in certain

modes, and by means only of the appropriate objects to which they relate.

The pleasures and pains of this life, are partly those of sense, and partly those of the emotions. To a certain extent, those of sense and emotion are perfectly consistent. We may, however, exercise our capacities of sensual pleasure, to the prejudice of our pleasurable emotions; and we may exercise our ideal faculty and emotions to the prejudice of our sensual enjoyment. The former is common; the latter occasional.

Different classes of pleasurable emotions are, to a certain extent, consistent with each other. We may exercise and pursue them all conjointly, and enjoy one without losing others. But beyond certain limits, we cannot pursue or indulge one class of emotions, without prejudice to others. Delight in one or more classes of objects, or displeasurable emotions, relating to objects of one or more classes, may be indulged to such an extent as to prevent the exercise of other classes of emotions;

(1.) By preventing us from contemplating objects adapted to excite other classes of emotions;

(2.) By increasing our susceptibility of the emotions indulged, to a degree disproportionate to that of exercising other emotions.

The susceptibilities of sensation and emotion, are often developed and exercised disproportionately to their real and comparative importance. The disproportionate exercise of sensations produces sensuality, and is altogether incompatible with the highest development and exercise of the emotions which relate to beauty, goodness, &c.

SECTION III.

THE FINAL ENDS OF EMOTIONS.

Emotions are the final rewards and punishments of voluntary actions, both in the case of merely voluntary, and of moral beings. In this respect, as in some others, they are analogous to sensations, but are of a higher order.

Without them we should be capable of the happiness and misery of pleasurable and painful sensations, but not of any higher intellectual and spiritual enjoyments or sufferings.

The systems of sensations and emotions are intimately connected, and are component parts of one great system of susceptibilities of happiness and misery.

We pursue the attainment both of pleasurable sensations and emotions, according to previous ideas. We attain ideas that certain objects may serve as objects of pleasurable sensations, and seek them for that purpose. So we form ideas that certain objects of thought, or certain means of exciting thoughts, will lead to pleasurable emotions, and accordingly pursue them.

In the case of men and other moral beings, pleasurable emotions are the highest rewards of morally good actions; and painful emotions, the highest penalties of morally evil actions. These rewards and punishments are administered in this world to an extent, and with a uniformity, which far exceeds the apprehensions of most men. Its most perfect administration, however, is reserved for the world to come.

Emotions are the elements of all possible happiness and misery which do not consist of pleasurable or painful sensations. They are, therefore, the final ends of all the other endowments and exercises of moral beings. All subordinate human faculties and exercises are capable of subserving directly or indirectly the exercise of the emotions.

Besides being the ends for which other mental exercises occur, emotions serve, like sensations, as grounds of inference, and lead to the attainment of numerous emotion-producing ideas, which would otherwise be unattainable. We experience emotions in view of particular objects as new, beautiful, or sublime, and form corresponding ideas of those objects. Ideas of beauty depend on emotions which relate to the beautiful, as really as those of color depend on sensations of sight. Emotions, in view of the beautiful, are as much the foundation of our ideas of ob-

jects as beautiful, as sensations from resistance are of objects as resisting.

On the basis of sensations, we form ideas of sensible objects; and on the basis of the emotions, of emotion-producing objects. Our usual ideas of emotion-producing objects, relate to them as objects of emotions, just as our ideas of sensible objects relate to them as sensation-producing objects.

The same objects may excite various emotions, some pleasurable, and some painful; and may excite emotions of different kinds, in different degrees. At some times they may excite emotions of particular kinds, and at others those of other kinds. All emotions are capable of being excited in different degrees, according to the degree of attention which is paid to their objects. Some objects are incapable of exciting strong emotions; others are capable of exciting them in different degrees, proportionable to the times during which they are made the objects of our undivided attention. Those which are capable of exciting the strongest emotions, may excite them in many cases only in slight degrees.

In forming ideas of objects, considered in relation to the emotions which they are capable of exciting, we must be governed by the emotions which we actually experience from them, and from similar objects, just as in forming ideas of sensible objects, we must be governed by the sensations we experience from them. What we feel to be resisting, we must form ideas of as resisting; what we see to be colored, we must form ideas of as colored, &c. On the same principle, what we find by experience to be beautiful or deformed, pleasurable or painful, as objects of thought, we must form ideas of accordingly.

One of the great ends of the primary emotions, is to furnish, by means of the ideas which they concur in producing, objects of the affections, of love and hatred, hope and fear. Sensations furnish one class of such objects, and the emotions another.

CHAPTER II.

THE PHILOSOPHY OF THE AFFECTIONS.

SECTION I.

THE GENERIC PROPERTIES AND ORDERS OF THE AFFECTIONS.

Affections and emotions are often used to denote the same classes of mental exercises. The same mental exercises and those of the same kinds, are sometimes denominated emotions, and sometimes affections, and are often designated by both these titles in the same discourses and paragraphs. In a more restricted sense, however, emotions are applied to denote one class of phenomena, and affections another. The phenomena which are distinguished from all others by the title of emotions, have been discussed in a former chapter, and we now come to the consideration of those which are appropriately styled affections.

The leading orders of the affections are;

1. Love and hatred;
2. Hope and fear.

Each generic order of the affections consists of two subordinate genera. They all agree in several important properties, which are common to other classes of phenomena, and in several which are peculiar to themselves.

They relate to minds as their subjective causes, and to ideas as their objective concurring causes in common with emotions and desires. They are also, like them, capable of different degrees of continuance and intensity, from those which are the shortest and smallest which are capable of being appreciated, to those which are of considerable duration and intensity.

The capacity of exercising the affections is co-extensive with those of the emotions and desires, and is subject to similar restrictions. In order to experience affections of any kind, we must have appropriate ideas, or

ideas of objects adapted to excite them, and these ideas must relate to their objects as possessing the peculiar properties by the apprehension of which affections may be excited. We may have some ideas of the appropriate objects of affection, without having ideas of them as possessing those properties which are adapted to excite affections.

The affections are subsequent, in the order of succession, to sensations and emotions. Without having first experienced sensations and emotions, affections of any kind would have been impossible. We first experience sensations and emotions, then determine their relations, as uniform effects, to sensible and emotion-producing objects; and lastly, love and hate exercise hope and fear, &c., towards different classes of these objects, on account of their real or supposed capacity to excite pleasurable or painful sensations or emotions.

Any thing which can serve as a permanent concurring cause of pleasure or pain, may be the object of affections belonging to each of the subordinate genera above specified; that is, may be loved or hated, and may be an object of hope or fear.

All objects of which we have any knowledge, are capable of exciting our affections.

Love and hatred relates to objects considered without respect to time; and hope and fear to actions and events considered as future. Affections of the first of these classes are immediate; and those of the second prospective.

The peculiar element of the affections is an emotion either of a pleasurable or painful nature, which arises from ideas of objects considered as adapted to afford the subject, pleasure or pain. Other emotions do not arise from ideas of objects considered as pleasurable or painful, but from the ideas of them considered as having properties which are independent of emotions of any kind. Affections, therefore, are analogous to the emotions, and differ from those of other classes only as co-ordinate species belonging to the same genus.

Emotions are the genus of which primary emotions are one species, and secondary emotions, or those which constitute the distinguishing element of the affections, another.

The affections agree with the primary emotions in exciting corresponding desires.

The affections of moral agents are either morally good or evil, according as they tend to promote or destroy the happiness of their subjects and other beings. All beings capable of affections are as really the subjects of obligation in respect to them, as in respect to any other actions; and all moral beings are as much the subjects of moral obligation in respect to these exercises, as in respect to any of their other actions. The obligations to love and to hate, are of the same nature as those which bind us to preserve and to destroy; or to reward virtue and to punish vice.

The names applied to denote the different affections, like many other names of mental phenomena, are sometimes used to denote transient exercises of affection, and sometimes to denote successions of similar exercises which relate to the same objects. Thus we speak of our affections for parents, children, &c., as being the same in successive and widely separated periods of time; because they consist of successive and frequently occurring exercises which are considerably similar. Judgments, cognitions, imaginations and reminiscences, are described and conceived of as the same, on similar grounds.

Permanent ideas consist of successive similar ideas; and permanent affections of successive similar affections. The previous exercises of permanent affections bear the same relations to successive similar ones, that previous ideas do to successive similar ideas. Affections for the same objects are no more the same in successive periods of time, than successive ideas are.

The attainment of correct ideas of particular objects in one or more successive instances, facilitates, and almost secures the attainment of correct ones, in all subsequent instances in which they may be needed. So that what we learn once or twice, we do not easily forget, and are almost sure to discover as often as we may have occasion

for the discovery. The same is true of the affections. An object which we love to day, and for several days successively, we are more likely to continue to love forever, provided the object and our relations to it continue unchanged. A loss of affections towards objects in different successive periods of time, is always the effect of previous changes in our ideas of them. These changes in our ideas may arise from actual changes in the objects ; from changes in our capacities or rules of judgment ; or from changes in the relations of the objects concerned, to our capacities of pleasurable and painful sensations or emotions.

All the affections serve as concurring causes of numerous desires, which accompany them as their appropriate effects. We love some objects and desire to enjoy them ; hate others and desire not to suffer them ; hope for some objects and desire to attain them ; and fear others and desire not to suffer them.

SECTION II.

THE GENERIC PROPERTIES AND ORDERS OF LOVE AND HATRED.

Love and hatred comprehend a numerous class of affections, which are usually distinguished from each other by a specification of their objects. The lower orders of these affections relate to inanimate objects, such as minerals, plants, flowers, possessions, &c. Some objects we love merely as objects of the appetites ; others as objects of taste. Various kinds of food and drink are of the former description ; and beautiful and sublime objects, either natural or artificial, of the latter.

The love of conscious beings not endowed with powers of moral agency, is of a higher order than that of beings which are incapable of consciousness. Of this description is the love of animals, birds, and insects. Children are peculiarly susceptible of this class of the affections ; and distinguished naturalists have, in many cases, exercised them in high degrees.

The highest order of the affections is that which relates to moral agents, considered as possessing powers of moral agency. Of this description are the affections of men and other moral beings for each other.

Affections for objects considered merely as the objects of appetite, are common to men and animals. The same is true, to some extent, of those which relate to objects considered as the objects of taste. But affections for objects considered as moral beings, are peculiar to moral beings. Others are not capable of exercising them.

Objects may be loved with affections of different orders. A dog loves his master as a voluntary being, from whom he derives particular pleasurable sensations and emotions; not as a moral being. The same individual may be loved by his infant child, with affections of a similar order. By moral agents he may, in many cases, be loved with affections similar to those of animals and infants. But he is capable of being loved and hated by moral beings with affections of a higher order; and such as relate to him not merely as an objective concurring cause of pleasurable sensations and emotions, considered without respect to his moral character; but as an objective cause of pleasurable emotions excited by ideas of his moral goodness; and of painful emotions excited by ideas of his depravity.

Love is of a higher or lower order in respect to quality, according to the nature of its objects. That which relates to the objects of the bodily appetites, is of the lowest order; and that which relates to moral beings, of the highest; leaving that which relates to the beautiful and other objects of taste between.

The intensity of love is entirely distinct from its quality; that of all qualities being capable of existing in degrees which are extremely slight, and in those which are exceedingly intense.

Men are capable of loving the lowest objects of affection more than they love the highest. Objects are entitled, however, to degrees of love from moral beings, proportional to their qualities.

Moral beings ought to be loved more than animals; animals more than inanimate objects; and objects of taste more than those of the appetites.

Love is pleasurable and hatred painful. The pleasure of loving, however, is not the ground or reason of this class of affections. We do not love objects because the love of them is pleasurable, any more than we experience the emotions of beauty or sublimity because they are pleasurable.

The love of sensible objects, considered merely as concurring causes of pleasurable sensations, is of the same nature as the love of emotion-producing objects, considered merely as concurring causes of pleasurable emotions. The latter, however, is of the highest order. Most sensible objects are emotion-producing objects too, and are capable of exciting affections of a complex character relating to them, both as objects of pleasurable sensations and of pleasurable emotions, independent of those sensations.

Love and hatred are both accompanied with corresponding desires relating to their objects. We desire to enjoy the objects of our love, and desire not to encounter the objects of our hatred. Whatever we love we desire to enjoy; and whatever we hate we desire not to suffer. Objects of love are objects of enjoyment, and of desire for purposes of enjoyment; and objects of hatred are objects of suffering, considered as the opposite of enjoyment, and of corresponding desires that we may not suffer them.

Desires which relate to the objects of the affections, are usually confounded with the affections which they accompany. They ought, however, to be carefully distinguished, and are an entirely distinct class of phenomena.

Different instances and varieties of love and hatred are usually distinguished by terms expressive of their objects: such as self-love, the domestic and social affections, the love of animals and inanimate objects, and the love of God.

Hatred bears the same relation to love, which painful sensations and painful primary emotions do to pleasurable ones. It is excited by objects of painful sensations and emotions, precisely as love is by those of pleasurable ones. The properties of objects are all relative, and many of them variable. Things may be pleasurable in some respects,

and painful in others; pleasurable to some persons, and painful to other persons; and painful at some times, and pleasurable at other times.

Objects cannot be hateful except by means of ideas relating to them as concurring causes of painful sensations or emotions, or of the prevention of such as are pleasurable. Ideas of objects as directly or indirectly destructive of happiness or productive of misery, are adapted to excite painful emotions which are the essential elements of hatred. Without such ideas of objects, hatred is impossible; with them, it is not only universally possible, but in many cases, inevitable.

Human depravity is strikingly exhibited in the ordinary exercise and development of the affections. The different varieties of love are commonly exercised, in degrees far too small to subserve the highest possible happiness of men, in the domestic and social relations; and there is a still greater deficiency of love to God, than of affection to men. But hatred is exercised as much too frequently, and as much too intensely, as love is too infrequently, and too feebly. The criminal exercise of it is one of the universal manifestations of depravity, and one which is only equalled by universal deficiencies of men in respect to love.

SECTION III.

SELF-LOVE, THE SOCIAL AND DOMESTIC AFFECTIONS, AND THE LOVE OF ANIMALS AND INANIMATE OBJECTS.

1. Self-love.

Ideas of ourselves as subjective causes of all our happiness and misery, are common to men and animals. These ideas are indispensable concurring causes of self-love. Men love themselves as subjective causes of all their possible happiness; and animals love themselves, considered in similar relations, as far, and only as far, as they perceive those relations. Without any perception of

ourselves as subjective causes of our own happiness, self-love is not possible.

Beings are objects of love to themselves, as far as they have subjective capacities of happiness, and have a knowledge of those capacities; no farther.

Beings capable both of happiness and misery, are objects of self-love, or self-loathing, according as one or other of these classes of susceptibilities preponderate. Those capable of more happiness than misery, will be appropriate objects of self-love, as far as their capacities of happiness exceed those of misery; and those capable of more inevitable misery than possible happiness, will be appropriate objects of self-loathing, as far as their capacities of misery exceed those of happiness.

Our capacities of happiness and misery are both relative, and depend on concurring objective causes of their respective exercises, in order to be effectual. They require to be estimated according to the objects with which we are supplied, and which we are capable of attaining.

Removed from all objects of pleasurable sensations, our senses cease to be available in any degree, as means of that happiness, which consists of sensations; and shut out from all objects of pleasurable emotions, we become equally incapable of any happiness from them. Cut off from both of those sources of enjoyment, we should be incapable of any happiness whatever, and of any degree of self-love.

Men are appropriate objects of self-love, considered not as capable of unmixed happiness in this life; but as capable, in the ordinary conditions of this life, of an amount of happiness far greater than that of inevitable misery. Some we must suffer, in the best earthly conditions, but our inevitable sufferings are small and few, compared with our possible enjoyments.

Self-love is capable of different degrees of intensity, like other affections, and is much greater in some persons than in others, and in the same persons at sometimes than at others. It is doubtless much greater in men than in animals, whose intellectual endowments are more limited; and incomparably greater in beings of still higher orders,

than in men. On the same principle, it is generally greater in the wise and improved, than in the unwise and unimproved. The self-love of God must be infinite.

Self-love is often confounded with selfishness. The two, however, are entirely different.

We may love ourselves in the highest degree possible, but we must love our neighbor as ourselves. This is the second and great commandment, which we cannot transgress with impunity. Matt. xxii. 39. No possible degree of self-love is wrong; but the smallest degree of selfishness is entirely so. Self-love is always pleasurable, and selfishness always in some degree painful.

Selfishness consists in a preference of our own happiness and interests to those of others, as if they could ever come in real collision. This preference, however, is founded in error. The happiness and interests of holy beings, under the righteous government of God, can never come in real collision. There is, therefore, no just ground for a preference of our happiness or interests to those of other moral beings. We may rightly prefer the enjoyment of some things to that of others; our own happiness to our own misery; and our future happiness to that of the present time; but we may not lawfully prefer our own happiness to that of other moral beings. Benevolence is the opposite of selfishness, and is incapable of excess.

Self-love is not, as many suppose, the foundation of the love of other objects. We love other objects, not because we love ourselves, but for the same reason that we love ourselves. We love ourselves because we are the subjective concurring causes of our happiness; and we love other beings because they are the objective concurring causes of it. The love of ourselves does not differ at all from the love of other beings, except in relation to its objects. The love of others is an affection of the same nature, in all respects, as the love of ourselves, and rests on the same substantial basis.

2. The domestic and social affections.

(1.) The domestic affections.

The domestic affections relate to our fellow-men, considered as members of the same families with ourselves.

They consist of several varieties, denominated, (1.) Conjugal ; (2.) Parental ; (3.) Filial ; (4.) Fraternal.

Each of these varieties of love correspond to important social relations, which the objects of them sustain to the subjects. Conjugal love is reciprocal; parental love corresponds to filial; and fraternal love is reciprocal.

The charm of domestic life is derived from the domestic affections. They are a source of unbounded happiness within family circles, and of immense public benefit to civil and ecclesiastical communities.

(2.) The social affections.

The social affections relate to our fellow-men, considered, (1.) As fellow-men ; (2.) As fellow-citizens ; (3.) As members of the same smaller communities, either civil or religious ; (4.) And as personal friends.

All men are appropriate objects of love as men ; members of the same states and smaller communities, as fellow-citizens and associates; and personal friends, as friends. All these affections are designed to be perfectly reciprocal. Different persons exercise them with different degrees of frequency and intensity, but few, if any, are entirely destitute of them.

Of the several varieties of the social affections, friendship is one of the most interesting and important. Like the domestic and other social affections, it is designed to be reciprocal, and must be reciprocated, in order to be fully developed. The essential element of friendship is delight in persons of our acquaintance, as friends. This affection relates to them as possessing all the qualities which render them agreeable and useful to us in that relation. It is nearly allied to the domestic affections; relates, like them, to comparatively few objects; and is exercised, in many cases, with great frequency and intensity.

The love of mankind generally as human beings, is similar to the other varieties of the social affections, but is less intense than others, in proportion as it is more extended.

3. The love of animals and inanimate objects.

We sustain interesting and important relations to animals and inanimate objects generally, and to many objects

of these classes, in particular; and are directly or indirectly dependent on them, for a large amount of happiness.

Gardens, favorite plants and flowers, favorite domestic animals, and favorite productions of art, are often objects of intense love. To be without these affections, in circumstances favorable to their development and exercise, is a great misfortune and a sin.

SECTION IV.

THE LOVE OF GOD.

The last and highest order of the affections are those which relate to God. God is as real and immediate an object of human love, as men and other terrestrial beings.

Our knowledge of him is of the same nature as that of human minds. We know him as the subject of thoughts, emotions, affections, and external actions, terminating on ourselves and others. Other beings which elicit our affections, are but types of God. Parents represent him as our parent; friends, as our friend; and kind benefactors and masters, as our benefactor and master. But no other beings can afford a full and adequate representation of him, considered either in respect to his essential attributes, or his relations to the creatures which he has made.

Ideas of God as an objective concurring cause of our happiness, are as really adapted to excite our love to him, as similar ideas of parents and friends are adapted to excite our love to them. Such ideas are among the most legitimate and certain deductions of reason. They are attainable by processes perfectly similar to those by which we attain love-producing ideas of our fellow-men, or of other terrestrial objects. The same course of reasoning which leads us to ideas of our parents, friends, and benefactors, as sustaining these relations, prosecuted a few steps farther, leads us, with equal certainty, to ideas of God as infinitely more to us than all earthly friends and rela-

tions together. These ulterior ideas of God have as real an adaptation to excite love to him, as ideas of earthly friends have to excite love to them.

The first commandment of the scriptures requires us to love the Lord our God with all our hearts, and with all our souls, and with all our minds. Matt. xxii. 37. It implies that the love which is due to him, requires the highest and most vigorous exercise of all our faculties, both of reason and affection; of reason, in ascertaining his character and works, and in attaining love-producing ideas of him; and of affection, in loving him as the object of those ideas.

No language can be more beautiful, or appropriate, or more accordant with the principles of sound mental philosophy.

In requiring us to love him, God requires us to obtain rational ideas of him as a cause of our happiness. The attainment of these ideas requires the exercise of the faculty of ideas, and of all the subordinate mental faculties. In requiring us to love him with all our minds, God requires us to pursue the attainment of rational ideas of him, to the greatest possible extent, as a means of exciting our highest love. The character and relations of God are a subject of unbounded extent and interest. They are appropriate objects of human knowledge, and admit of being studied with increasing pleasure and profit, not only while this life endures, but forever.

But having ideas of God, is not loving him. Such ideas are essential objective causes of love; but they do not produce it necessarily. They may be exercised, and love not attend them, or not attend them with proper degrees of intensity. Hence there is occasion for the other part of the command; "thou shalt love the Lord thy God with all thy heart."

The capacity of loving objects, considered as possessing certain properties, is common, in some degree, to all human beings. Like other mental faculties, it is capable of being greatly modified, by the manner in which it is occasionally and habitually exercised. Occasional abera-

tions lead to habitual ones, and habitual ones to incurable impotency.

The affections agree with other mental actions in being right or wrong, according as they are viewed by their subjects, as conducive to their own happiness and that of other beings; or as inconsistent in some degree with their own greatest ultimate happiness, or with the happiness of other beings.

The human faculties of affection are similar to those of sensations and ideas. We have capacities to exercise all the sensations and ideas which we are morally obligated to exercise; and all the emotions and affections which are similarly enforced. The sphere of moral action is only co-extensive with that of the moral powers. The former determines the latter. The best affections possible at any time, are the best which are required; and the requirements of every hour vary with the capacities and opportunities which every hour affords.

The moral obligations of men to love each other, depend on their capacities and opportunities to exercise these affections; the same is true of their moral obligations to love God.

The capacities and opportunities of men to love each other, are adequate to enable them to perform this class of duties; and their capacities and opportunities to love God are equally adequate to enable them to love him. These affections would not be duties, either without capacities, or opportunities and means for exercising them.

The Holy Spirit is a concurring agent in the production of all right human affections, embracing the love of God and man, and both equally. His agency, however, does not supersede that of the mind as the sole subjective cause of all its exercises. The love of God bears the same relation to the human faculties of loving him, which the love of men does to the corresponding faculties of loving them.

Men are as really created for the exercise of right affections, as they are for the attainment of rational ideas. Irrational ideas are possible; and wrong affections are also possible; but both are violations of the laws of God, and are alike unnecessary and injurious.

SECTION V.

HOPE AND FEAR.

Hope relates to the objects of future possible happiness, and fear to those of future possible misery. These two affections, therefore, are similar to love and hatred in relating to pleasurable and painful objects. Hope and fear are often confounded with desires which relate to the objects of hope and fear. Like love and hatred, they are the concurring causes of desires, but are clearly distinguishable from their effects. We contemplate some future possible events with hope, and desire them; and others with fear and desire that they may not happen.

Other things being equal, the desires which accompany the affections, are proportionable to the intensity of the affections which produce them. This is the case with the accompanying desires of hope and fear, equally with those of love and hatred.

Hopes are pleasurable, and fears painful. When exercised by moral agents, they are the subjects of moral obligation, and are either right or wrong.

Those hopes which relate to future possible events as directly advantageous to ourselves, and indirectly to others; or directly advantageous to others, and indirectly to ourselves, are right; and those which relate to future possible events as directly or indirectly to our advantage, and directly or indirectly to the ultimate injury of other beings, are wrong. The same is true of fears.

Some modifications of hope and fear, and of love and hatred, are exercised by animals. Most animals love their associates and their young. Many of them evince attachments of great strength, and retain them for considerable periods of time. The manifestations of animal hope and fear, are analogous to those of animal love. Man, however, is vastly superior to animals in respect to capacities of emotions and affections. His objects of pleasing and painful emotions, are far more numerous and diversified than those of animals; and his superiority, considered as a being of affections, is proportionable to his superiority

in other respects. The objects of human love are infinite in number, and infinitely diversified ; those of the love of animals are few, and of but little diversity. The same is true of human and animal hopes and fears. The objects of animal hopes and fears are few in number, are limited to short periods of time, and relate to objects of comparatively little importance. Those of human hopes and fears are innumerable, extend to periods of the longest conceivable duration, and relate to events of the greatest conceivable importance.

The pleasures of hope are analogous to those of love, and the pains of fear to those of hatred. They constitute a large and important part of the pleasures and pains of this life ; and will, doubtless, attend us in every future state of conscious existence. "Prisoners of hope" is an epithet applied to men, in the beautiful and poetic language of the scriptures. Zech. ix. 12. No language can be more truly descriptive of human nature, in every age and country, and in every stage of development.

Those events which are the objects of hope, are in many cases uncertain. We form ideas of them as possible, and hope for them ; and form other accompanying ideas of their non-occurrence as possible, and fear they will not occur.

Hopes and fears depend immediately on ideas of the objects of these affections, as their concurring causes ; remotely on the primary emotions and affections ; still more remotely on the objective exciting causes of previous emotions ; and so on.

Men and other created beings are the subordinate objects of hope and fear, as they are of love and hatred. But the only ultimate object of these affections, as exercised by moral beings, is God.

God sustains similar relations to the human capacities, both of knowledge and of the affections. He is the ultimate object of all human knowledge. All other beings reveal him as their creator ; and all the phenomena, both of matter and mind, refer to him as their single and exclusive ultimate cause. God is as really the exclusive ultimate cause of all things, as man is the exclusive subjective

cause of his ideas and actions, or matter the exclusive subjective cause of its attractions and repulsions.

God is as really the only ultimate object of all right human affections, as he is the only ultimate object of all rational human ideas. In being the ultimate cause of all things, he is the ultimate cause of all possible happiness and misery, and is as legitimate an object of love, considered in the relation of an ultimate cause of happiness, as men are, considered as immediate causes of happiness; and as legitimate an object of hatred, considered as an ultimate cause of misery, as men are, considered as immediate causes of it. The same is true of God, considered as an ultimate object of hope and fear. All rational hopes and fears terminate on him as their ultimate object, for the same reason that all rational love and hatred do.

The love of God is as necessary to serve as a regulating principle of the other affections, as the knowledge of him is, to serve as a regulating principle of other ideas. Without a knowledge of God, we cannot understand anything perfectly; and without a love of him, we cannot have duly regulated love for subordinate objects. The hopes and fears which terminate on God, have the same relations to those which terminate on subordinate objects, which the love of God has to subordinate similar affections. They are of the greatest necessity, as regulating principles of all subordinate hopes and fears.

SECTION VI.

TEMPERS AND DISPOSITIONS.

Temper and disposition are words in common use, to denote different modifications of character, arising from different degrees of susceptibility of the emotions and affections generally, or of particular classes of them.

They are of many different varieties, but may be conveniently distributed into the following orders: 1. Ardent or excitable; 2. Cool or unexcitable; 3. Benevolent; 4. Malevolent; 5. Cheerful; and, 6. Melancholy.

1. Ardent tempers.

All persons who are more excitable than the general mass of mankind, by the objects of love and hatred, hope and fear, satisfaction and regret, &c., may be considered as possessing an ardent or excitable temper, and may be classed together accordingly. Persons of this temper may be distributed into several subordinate classes, according to the greater or less degrees of their excitability.

Some are in a slight degree more excitable than the great mass of mankind, and others in a great degree more so. Those of ardent tempers experience higher degrees of love and hatred, hope and fear, satisfaction and regret, in relation to given objects, than others; and those whose tempers are most ardent, other things being equal, experience these affections in the highest degrees.

2. Cool and unexcitable tempers.

A cool and unexcitable temper is the opposite of an ardent one. As some persons are more excitable than ordinary, by the objects of emotion and affection, so others are proportionably less so. The varieties of a cool and unexcitable temper, correspond to those of the ardent or excitable. Some are in a slight degree less excitable than mankind generally, and constitute the highest class of cool tempered persons; others are one perceptible degree less excitable still, and constitute the second class of the unexcitable; and so on, to those whose excitability is the least possible.

Persons of cool tempers, love and hate, hope and fear, experience satisfactions and regrets of less intensity than others.

3. Benevolent tempers.

A benevolent temper consists in a more than ordinary disposition to exercise the affections of love to our neighbours and fellow-creatures of different orders, and a less than ordinary disposition to hate them. Some are more disposed to love, and others to hate; some to pity, and others to despise.

A benevolent temper depends on the predominance of the benevolent emotions and affections, and is of a higher

or lower order, according as that predominance is greater or less.

A benevolent temper may be either ardent or cool. Where ardency and benevolence combine, they invest the character with peculiar excellence. Those who are in the highest degrees ardent and benevolent in their emotions and affections, are in the highest degrees amiable and interesting.

4. Malevolent tempers.

A malevolent temper is the opposite of a benevolent one, and consists in a more than ordinary disposition to exercise the different orders of malevolent emotions and affections. A malevolent temper depends on the predominance of the malevolent emotions and affections, and is of a higher or lower order, according as that predominance is greater or less. A malevolent temper may be either ardent or cool. In the former case it will be characterized by proportionably intense animosities, bitter resentments, and cruel revenge; and in the latter, by those proportionably moderate.

5. Cheerful tempers.

A cheerful temper is nearly allied to a benevolent one. Benevolence tends to promote cheerfulness, because the benevolent emotions and affections are all pleasurable. Persons, however, are not always cheerful in the same degree that they are benevolent. Cheerfulness is sometimes the accompaniment of malevolence, and melancholy the accompaniment of benevolence.

Cheerfulness consists in the predominance of pleasing emotions. Where this predominance is greater than is usual to the mass of mankind, it constitutes a cheerful temper. These tempers are of higher or lower orders, according as the predominance and intensity of the pleasing emotions is greater or less.

Ardency, benevolence, and cheerfulness, or any two of them, may co-exist in the same individual. Each of the two former tempers tend to elevate the character of the latter, in all cases where they co-exist.

A high degree of cheerfulness may arise from any one class of pleasurable emotions; or what is more common, from the concurrence of emotions of different classes.

6. Melancholy tempers.

Melancholy is the opposite of a cheerfulness, and consists in the predominance of pleasing emotions. Where this predominance is habitually greater than is usual to the mass of mankind, it constitutes a melancholy temper. Melancholy tempers are of different orders, according to the degrees in which painful emotions predominate.

Habitual melancholy is frequently the effect of sickness, disappointments in business, love, and the various pursuits of life. In cases of this kind, the temporary exercise of particular emotions and affections, and particular classes of them, gives those thus exercised, a predominance which they permanently retain.

The different tempers are partly natural, and partly acquired.

Persons may be naturally ardent or cool, benevolent or malevolent, cheerful or melancholy. Diversities of this kind are equally hereditary with those which relate to the intellectual powers.

In their highest degrees of development, however, the tempers above described are chiefly acquired. Persons form habits of strong or feeble affections; of benevolent or malevolent ones; and of cheerfulness or melancholy; and various circumstances lead to the formation of various habits in these respects; and contribute to the diversities of temper which every where prevail.

Highly excited and intense emotions and affections, are denominated passions. The emotions and affections are almost constantly exercised, in some degree, by all men. They enter into the experience of every day, and almost every hour of life. But their excitement to those degrees which constitutes them passions, is less frequent than their excitement in less degrees.

We experience the exercise of the emotions and affections hundreds of times in lower degrees, where we experience them passionately once; and hundreds of objects excite them in lower degrees, where one excites them passionately. Thus we love hundreds of objects in different degrees, less than sufficient to constitute passions, and a few individual objects passionately. We hate hun-

dreds of objects in some degrees less than sufficient to constitute passions, and hate some passionately. So of hope and fear, satisfaction and regret, joy and sorrow, and the emotions and affections generally.

Persons may be occasionally or habitually passionate. They may also be addicted to passions of one or more classes, or to the exercise of all the passions generally. Some love passionately, who can hardly be said to be the subjects of any other habitual passion. Some hate passionately, without experiencing the habitual exercise of love in a passionate degree. So of all the other affections.

Youth is generally considered the period when the passions are most easily excited, and capable of being excited in the highest degrees. Then the ardent are usually the most ardent, and the stupid the least stupid, the loving the most affectionate, and the hating the most malevolent, the cheerful the most cheerful and joyous, and the melancholy least sad; and all the different passions of love and hatred, regret and satisfaction, and of hope and fear, are capable of the easiest and strongest excitement. Some of the passions, however, of mature years, and even of age, are incomparably stronger than those of early life. Most are capable of increasing strength from exercise.

CHAPTER III.

THE PHILOSOPHY OF DESIRES.

SECTION I.

THE GENERIC PROPERTIES AND ORDERS OF DESIRES.

Desires are a class of emotions dependent on ideas of objects considered as concurring causes of pleasurable or painful sensations, primary emotions or affections; and are subsequent in the order of succession to sensations and primary emotions; and also to the affections. They are sometimes denominated emotions, and sometimes affections. All these exercises, like different classes of ideas, have several generic properties in common. But they are also capable of being easily distinguished from each other, and reduced to subordinate genera, all belonging to the single genus of emotions or feelings dependent on ideas.

We contemplate possible objects of pleasure, and desire to enjoy them; possible objects of pain, and desire not to suffer them. Desires are common to men and animals. Those of men are far more numerous than animal desires; relate to many objects of far greater importance; and extend to incalculably longer periods of duration.

The desires of moral beings agree with their other modes of voluntary action, in being either right or wrong. Those which relate to objects viewed as pleasurable directly to ourselves, and indirectly to others; or directly to others and indirectly to ourselves, are right; and those which relate to objects considered as not ultimately pleasurable to ourselves, or as pleasurable to ourselves, but directly or indirectly injurious to others, are wrong.

Wrong desires imply a competition of interests among moral beings, and an indifference to the happiness and misery of other beings, for which there is no just occasion under the Divine government.

The desires sustain important and interesting relations to all the other classes of mental phenomena. They re-

late to some other mental exercises as their essential concurring causes, and to others as their uniform effects. Ideas of desirable objects are essential conditions of desires.

Without ideas of life, we cannot have desires to live; without ideas of food, we cannot have desires of food; and without ideas of happiness, we cannot have desires of happiness. So of all objects of desire. Desires terminate on the objects of ideas, and cannot be produced except by means of those objects and of the ideas which relate to them.

Desires are common to all voluntary beings. God is as really the subject of them, as his rational creatures.

Desires of different objects can co-exist in created minds only to a limited extent, corresponding to that of the co-existence of ideas. As far as we can have co-existing ideas, we may have cotemporaneous desires; no farther. To desire objects of which we have no ideas at the time, is impossible. The sphere of our possible desires is co-extensive with that of our possible ideas; and that of our actual desires is limited by that of our actual ideas.

Different cotemporaneous desires may agree or disagree, according as their objects are compatible or incompatible with each other. We may desire different objects at the same time, which are compatible with each other, and those which are incompatible.

When we are the subjects of cotemporaneous disagreeing desires, the desire of one object counterbalances that of another, which is incompatible with it; so that we may desire each, considered by itself; but in consideration of their incompatibility, may desire only the one which we judge most desirable.

Many objects are desirable on some accounts, and undesirable on others. In these cases we compare the properties of objects which render them desirable, with those which make them undesirable; and either desire them or desire not to have them, as we judge their desirable or undesirable properties to predominate.

Cotemporaneous desires may be opposite in some respects, but they cannot be opposite in all respects. We

may desire to have an object on some accounts, and desire not to have it on other accounts, at the same time. But the ultimate objects of desire in these cases, are different. What we desire to have, is an object possessing certain desirable properties; and what we desire not to have, is an object possessing certain undesirable properties. Where we associate these properties as those of one and the same object, that object becomes desirable or undesirable, according as one or other of these classes of properties predominate.

The connexion between desires and ideas, is similar to that between emotions and ideas adapted to excite them; and to that between sensations and organic impressions. Appropriate ideas excite particular desires, as uniformly as ideas of beautiful objects, excite emotions of beauty, or those of sublime objects, emotions of sublimity, &c. Ideas of objects as desirable or undesirable, have respect to them as objects of sensation or emotion of some kind.

That which does not, in our judgment, sustain the relation of an object to some possible sensations or emotions, either pleasurable or painful, cannot be an object of desire. That which is not capable of being an object of desire, from its real or supposed relations to the possible sensations or emotions of the subject, cannot be an object of desire at all. The relation of desirable objects to the emotions of the subject of desire, may be direct or indirect, immediate or remote.

Many objects are highly desirable on account of their remote and ultimate relations to the happiness of individuals, which, considered with respect to their immediate effects, would be highly undesirable.

Persons who contemplate objects only as related to their capacities of pleasurable or painful sensations, desire them or not, as those objects are supposed capable of administering to their sensual enjoyment or not. Those who contemplate objects as capable of ministering to their intellectual pleasure, desire them for these higher and nobler purposes; and those who contemplate them as capable of affording intellectual pleasure of the highest order, desire them for purposes of the highest order. A similar comparison may

be instituted between objects considered in respect to their relations to our immediate, remote, and ultimate happiness or misery. Those who contemplate objects only as adapted to promote their present gratification or otherwise, desire them only on account of such adaptations, and in degrees proportionable to the same. Those who embrace in their conceptions of objects, ideas of all their possible adaptations to promote their happiness or misery, both immediate and remote, desire them or not, according as they appear on the whole to be desirable or undesirable.

It is necessary to contemplate objects in all their discoverable relations, and to consider in our estimates of them, all their possible effects, in order to have properly regulated desires in regard to them. Partial views often lead us to desire, when more liberal and extended ones excite within us the strongest aversions. Our desires cannot correspond to the real qualities of things, unless our ideas correspond to them. The attainment of just and adequate ideas is, therefore, an essential condition of appropriate and well regulated desires. Just and adequate ideas of knowledge lead us to desire knowledge; just and adequate ideas of the favor of God, lead us to desire the favor of God; and just and adequate ideas of human happiness, lead us to desire human happiness. So of all other objects of desire. In the case of moral beings, the most adequate ideas of objects possible, are subjects of moral obligation, considered as the concurring causes of desires. The same is true of them considered as the concurring causes of the emotions and affections, which are previous to desires in the order of succession.

Beings not endowed with powers of moral agency, are the subjects of obligation to attain adequate desire-producing ideas equally with moral beings; and to exercise corresponding desires by means of such ideas; but their obligations to do this, like those which relate to their other actions, are not moral, and are comparatively slight.

SECTION II.

IMPORTANT CLASSES OF DESIRES.

1. Desires of knowledge.

Knowledge is an appropriate object of thought, as something useful. Thus, we easily think of a knowledge of language, of mathematics, and the arts. We see persons derive great benefit from a knowledge of particular sciences, particular departments of literature, and particular arts; and experience the benefit of knowledge in numerous instances ourselves. By experience and observation of the utility of knowledge generally, and of particular branches of it to persons in particular circumstances, we become qualified to judge respecting our own wants in this respect. We find that some branches of knowledge are useful to all, and that others are useful to individuals in particular circumstances. Anticipating our own future circumstances, we judge that we shall need particular branches of knowledge appropriate to them.

Having judged that knowledge generally will be useful to us, or that this is the fact in respect to particular branches of it, we immediately have desires for those branches of knowledge, and for those degrees of knowledge in respect to them, which our greatest happiness and prosperity require.

We cannot desire knowledge of any kind, without first having formed ideas that it will be useful to us. If we judge that it will be useful in a slight degree, we exercise comparatively feeble desires for it; if we judge that it will be highly useful, we desire it with proportionable strength.

The desire of knowledge may be general or particular. The most intense desires of this class have respect to particular branches and items of knowledge, from which we judge important and particular benefits are capable of being derived.

2. Desires of wealth.

Wealth embraces a great variety of objects, capable of appropriation to the satisfaction of the wants of individuals, and possessing exchangeable value. In consequence of their exchangeable value, they serve as means of procuring any objects whatever, that are in the market, and that do not exceed them in value.

Wealth, therefore, is an object of affection and desire, considered without respect to its form, simply as something which possesses exchangeable value.

We judge wealth to be capable of affording us gratifications, and desire it accordingly. According to the nature and extent of the pleasure which we judge it capable of affording, will be the intensity and nature of our desires for it.

We have desires of considerable strength for wealth generally; but those which arise most frequently, and which are of the greatest strength, have respect to more or less particular kinds and amounts of wealth. Thus a farmer desires to free a particular farm from all incumbrances, and to have it properly stocked and furnished; mechanics, merchants, and adventurers of every class, have definite acquisitions constantly in view, to which this class of desires are chiefly directed.

Men desire particular amounts and kinds of property, after which they are striving, more than they desire all the world of wealth besides. Their desires are mostly limited to definite and small acquisitions, which they regard as immediate objects of pursuit, and which are followed by other similar desires corresponding to the varying condition and means of acquisition possessed by individuals. One man in given circumstances, desires a dollar more than another desires a thousand; shillings, dollars, thousands, and ten thousands of dollars are the successive objects of desire in the experience of the same individual, according to his circumstances and necessities, and his supposed means of acquisition.

3. Desires of esteem.

The esteem and respect of our fellow-men, is an acquisition of great value. It is the immediate cause of highly pleasurable emotions, and is indirectly the means of pro-

curing numerous and important benefits. Not to have some knowledge of the value of the esteem and respect of our fellow-men, is incompatible with the exercise of common sense. A proper comparative estimate of this attainment, is made only by the wisest and most discriminating. In proportion to the value which we attach to the esteem and respect of our fellow-men, will be our desires to secure it.

Those who consider general esteem particularly valuable, will exercise proportionable desires to secure it. Those who do not regard it as particularly necessary or useful to them, will desire it proportionably less. So of the esteem of particular communities and individuals. We have a greater interest in the esteem of some persons and some communities, than of others. This is the case with respect to the neighborhoods, states, and nations to which we belong, and the individuals with whom we are associated in domestic and public life.

5. Desires of power.

Power has respect to action and influence of some kind. It relates first to the use of our limbs and mental faculties, then to effects which we produce on other objects, whereby we adapt them to our convenience or necessities. We speak of a power to labor, to think, and to perform the various processes in the arts. Besides this, we are capable of influencing the conduct and affecting the condition of our fellow-men in various modes, and in different degrees. We may do this (1.) by argument and persuasion; (2.) by civil, religious, or domestic authority. The former is the power of conviction and persuasion, and the latter of authority.

The higher ranks in society are generally invested with considerable power to influence the conduct and affect the condition of those below them. Parents have authority over their children, masters over their servants, officers of every class, over those assigned to their charge. The lower ranks of society re-act on the higher. A proper degree of power is a valuable acquisition. Parents need to have sufficient power to govern their children; mas-

ters to govern their servants; civil, military, and ecclesiastical officers to accomplish the ends of their respective offices; children, servants, and the subjects of civil, military, and religious government, to protect themselves and others from injustice, and to enforce a due administration on the part of those placed over them.

These and other analogous degrees and modes of power, are appropriate objects of thought, affection, and desire. The desire of power is universal. The exercise of this desire is particularly obvious in the case of those who aspire to civil, military, or ecclesiastical authority. It is impossible not to desire power in some of its degrees and modes.

Power is an object of thought, as a means of securing various advantages to the possessor of it, and of doing great good to others. The acquisition of it is, therefore, of the greatest value, and is an appropriate and important object of human pursuit. In this respect it is analogous to knowledge, wealth, esteem, and society. In respect to all these objects, however, our desires ought to be regulated by our real necessities and opportunities of usefulness. These objects generally are desirable. Many particular modes and degrees of them are so. But this is not universally the case. There are many things which we have no need to know, many articles and degrees of wealth which we have no need to acquire, many instances and degrees of esteem and of association with others, and many degrees and species of power which are highly undesirable, and the desire of which is injurious and criminal.

6. Desires of superiority.

The relative condition of men in this world is that of equals, and of inferiors, and superiors. Brothers or sisters in the same family, and of the same age, may be considered as representing equals, though they are never so in all respects. All are associated with others in the relations of superiors and inferiors, to a much greater extent than would be supposed, without a thorough investigation of this subject. In some respect we are associated with others as equals; but in many respects as inferiors and superiors. Superior and inferior stations are designed to

have their peculiar advantages. They have their peculiar disadvantages. The advantages of superiority render it an appropriate object of desire. They are universally perceived, and corresponding desires are consequently universally felt. In a state where no advantages would be derived from superiority, no desire could appropriately be exercised towards it. This would be the case with a state of perfect holiness, and is doubtless so with heaven. But it is far from being the case in this world. Attainments are often more valuable in this world, and considered with respect to temporal benefits, by making us superior to others in power, wealth, or honor, than by any other means.

7. Desires of continued existence.

It is the high prerogative of man to remember the past, and anticipate the future. To restrict our ideas to the present, is impossible. It is equally so to restrict them to the present and past. We must anticipate to-morrow, next year, the next century, and other succeeding periods of time. Ideas of our existence or non-existence in future years and ages, are forced upon our attention. We must entertain them. They excite corresponding emotions. That of future existence is pleasing; that of future non-existence, unspeakably painful. The immortality which we desire, is a state of consciousness and enjoyment. Having formed ideas of such a state, we desire it as we do any other pleasurable object, and with a degree of intensity proportioned to our ideas of the pleasures of the existence desired. We cannot conceive of future happy existence, without desiring it.

The intensity of our desires for continued existence, is proportionable to the pleasures we expect to gain by it; and that of our desires not to sink into non-existence or unconsciousness, is proportionable to the pleasures we expect to lose by such a catastrophe.

The more we hope to gain by continued existence, the more we shall desire our existence to continue; and the less we hope to gain by it, the less shall we desire it. When we cease to hope for any advantage or happiness from existence, we cease to have any desire to exist.

The same is true of our present mode of existence in an incarnate and probationary state. While we see any advantages to be gained from the continuance of our lives, either to ourselves, or to others whom we love, we desire to live. When life ceases, by reason of infirmity or any other cause, to appear to be of any real advantage to us, and at the same time becomes actually painful, we desire not to live. We desire the continued existence of other objects, on the same principles that we do our own.

8. Desires of happiness to others.

The happiness of others is an object of pleasurable emotion. Parents delight in the happiness of their children; children in the happiness of each other; and all men, in all conditions, have more or less delight in the happiness which they witness around them. This capacity of enjoyment extends to the happiness of domestic animals, as well as to that of human beings.

The happiness enjoyed by other beings, therefore, is in many cases a real benefit to us, because the notice of it excites pleasurable emotions, and in many cases, those which are highly pleasurable in ourselves.

Whenever the happiness of a being affords us satisfaction, we are capable of desiring it, and of desiring it in a degree proportionable to the satisfaction which it affords us. A large proportion of the whole amount of human happiness is derived from ideas of the happiness of other beings. Those who are most susceptible of happiness from this source, are generally most happy; and those who are least susceptible of it, least happy.

Delight in the happiness of others, and emotions of an opposite character from their misery, serve as concurring causes of desires, having the promotion of the happiness, and the alleviation of the miseries of others for their final object. Whatever attainments can be conducive to the happiness of others, may be objects of desires in their behalf, as really as whatever can be conducive to our own happiness, may be an object of desires in our own behalf.

9. Desires of unhappiness to others.

A delight in the happiness of others, leads us to desire that they may be happy. In all cases in which the hap-

piness of others is on the whole pleasing to us, we desire it; in cases where it is on the whole displeasing, we are averse to it, or desire the contrary.

Men are capable of desiring that others may not be happy; or that they may be less happy than they are or may be, on the following accounts:

(1.) Some real or supposed collision of the interests of others with their interests;

(2.) Some real or supposed injury inflicted by those whose evil is an object of desire.

Envy and emulation, in cases where the success of others will render us unsuccessful, as in attaining a prize, office, situation, or particular object of any kind, are of the former class; resentment and revenge, of the latter.

Envy and emulation are of a similar nature, and comprehend desires that others may be unhappy or less happy than is possible, under the apprehension that their happiness in the particulars referred to, would be injurious to us. Persons may be envious or emulous, in respect to one or more particulars, and not at all, or in a slight degree so, in respect to others.

One exercises these desires chiefly in respect to wealth; another in respect to hereditary or acquired rank; another in respect to dress and personal accomplishments; and another in respect to knowledge.

Resentment and revenge both have reference to real or supposed intentional injuries. They are characterized by desires of evil to others, on account of the intentional injuries which we suppose they have done, or designed to do us. Thus we resent an insult, or an intentional injury to our persons, property, condition, or character. Revenge is similar to resentment, and comprehends desires of evil to the object of it.

The desire of evil to others is often exercised improperly. This is sometimes the case with the desire of good to them. We ought to desire that all sentient beings should have as much happiness as possible, in consistency with the general good. To desire evil to any sentient being as an ultimate end, or for its own sake, is impossible. Whenever evil is an object of desire, it is desired as a

means of securing some ulterior end. The only end which justifies the desire of it, is the greater ultimate happiness of the subject, or of other beings.

The only condition in which the misery of some moral being is conducive to the happiness of others, is that in which they suffer in consequence of sins. In that condition, evil may be a legitimate object of desire. It is right, therefore, to desire that thieves and murderers may be detected and punished, as a means of promoting the happiness of other moral beings. The same is true of all sins which are appropriate objects of the Divine displeasure. The conviction and punishment of sinners, is doubtless desirable, considered with relation to the universe of moral beings, on the same ground that the punishment of thieves and robbers is desirable, considered with relation to civil communities.

As long as men do right, their interests are in perfect harmony with those of other moral beings. When, by doing wrong, they diminish the possible happiness of other beings, it is just that they should suffer, to repair their voluntary injury of others; and that having brought their interests into collision with those of others, theirs should be sacrificed, and the interests of others secured.

All morally good actions are legitimate objects of desire. We ought to desire to perform them ourselves, and to have others perform them. Acts of benevolence, justice, and veracity are of this description. These acts all agree in being conducive to the happiness of the agents and of other moral beings, who act on the same principles. They may involve the unhappiness of moral agents, but they cannot involve the ultimate unhappiness of any that are morally good.

Morally good actions do not cease to be desirable in cases where they involve the misery of the morally evil, because in these cases, as in all others, their effects are, on the whole, favorable to the happiness, both of the subjects and other holy beings.

CHAPTER IV.

THE PHILOSOPHY OF THE WILL.

SECTION I.

THE NATURE AND EXERCISES OF THE WILL.

Beings are made capable of sensations, ideas, emotions, affections, and desires, not to be passive in experiencing them, but in order that they may choose the good and refuse the evil. This is true to some extent of animals and insects. They are made capable of happiness, in order that they choose and obtain it; and are made capable of misery, in order that they may refuse and avoid the things which lead to it. The same is true, to a still greater extent, of man, whose capacities of knowledge, and of happiness and misery, are incomparably greater than those of the noblest animals.

The sphere of choice is limited, and is proportionable to the capacities of the agents. Those agents which have the greatest capacities, have most to choose and refuse; and those which have the least capacities, least either to choose or refuse. The sphere of human choice is of vast extent; and the objects which it embraces are innumerable.

Voluntary animal or human action is that which proceeds from choice. All other action is involuntary. To will is to choose; and to perform voluntary action, is to act from choice. Involuntary action may be simply involuntary or contra-voluntary. The actions of material agents in resistance and attraction, are simply involuntary; that is, do not proceed from choice on the part of their subjects. The same is true of respiration and all those organic actions which we choose to have go on, though they proceed independently of our choice. They are involuntary, but not contra-voluntary, except in cases where we choose to have them cease. Pain and other conscious

exercises are contra-voluntary, when they are experienced contrary to our choice.

The immediate object of choice is happiness of some kind; its remote objects the means of happiness, both subjective and objective.

The choice of immediate good produces volitions and consequent actions, and that of remote good, purposes. Purposes, when continued till the time and occasion for their accomplishment, give place to volitions, which like other volitions terminate in immediate action. All the phenomena of the will, therefore, may be comprehended under choices, purposes, and volitions.

The sole subjective cause of these phenomena is the mind. The mind chooses purposes and exercises volitions. It puts forth these exercises in circumstances appropriate to choices, purposes, and volitions, just as it exercises sensations, ideas, and emotions, in circumstances appropriate to them. The will, therefore, is not something separate from the mind, which exercises a mastery over it. It is the mind itself, acting in the exercise of choices, purposes, and volitions; just as reason is the mind, considered as the subjective cause of judgments and cognitions.

SECTION II.

THE NATURE AND LAWS OF CHOICES.

Choice is synonymous with election and preference. It implies a capacity to choose, and objects of choice. Things not endowed with capacities to choose, cannot exercise choice; and beings endowed with these capacities, cannot exercise them without objects of choice, any more than beings endowed with capacities of sight, can see without visible objects; or those endowed with capacities to reason, can reason without ideas to reason from.

All possible varieties of pleasure and pain, and all their concurring causes, both immediate and remote, are legiti-

mate objects of choice. We prefer to have an object, rather than not to have it; we prefer to have one object rather than another; and prefer to have an object now, rather than to have it at another time; or at another time, rather than now.

Choices may be distributed into positive and negative. In positive choices, we choose to have particular objects in preference to others, or in preference to not having them; and in negative choices, we choose not to have particular objects in preference to others; or not to have them in preference to having them.

The faculty of choice is common to men and animals, and is exercised contemporaneously with the other mental faculties, by all classes of voluntary beings.

The essential conditions of choice are ideas of objects of choice; just as the essential conditions of love are ideas of objects of love; and those of desires, ideas of desirable objects. In order to choose one apple from a number, we must have ideas of all the apples which we are to choose from; and in order to choose to have an apple, or to choose not to have it, we must have ideas of our reception or non-reception of it, as depending upon our choice to have it or not to have it. So of all possible objects of choice.

The faculty of ideas sustains the same relation to choices, which it does to emotions, affections, and desires. All these phenomena are based on ideas. Choices, however, are subsequent in the order of succession to desires, as desires are to primary emotions and affections.

Our sensations and previous ideas contribute to determine our primary emotions; all these, and the additional ideas consequent upon them, contribute to determine our affections; all these, and the additional ideas consequent upon them, to determine our desires; and all these, and the additional ideas consequent upon them, to determine our choices.

Choice is never exercised in an arbitrary manner. There are always reasons for our choices. We cannot prefer one object to others, without reasons of some kind for our preference. Choice, therefore, involves the exer-

cise of reason, and takes place in consequence of certain inferences, deductions, or conclusions, which are referable to the faculty of reason or judgment. For example, in choosing an article of merchandize from a number of articles of the same kind, reason is called into exercise, to determine which, of all that we select from, is best adapted to our purpose; which will do us the best service, or be of the most use to us; which is the handsomest, best, most durable, &c. That which we judge to possess the qualities above specified, or other desirable qualities, in the highest degree, becomes, in consequence of such judgment, the object of our choice. In these cases the judgment determines the choice. The same is true in all analogous cases.

Choices, therefore, are in conformity with the judgments which we form of the articles or objects to be chosen. That which we judge to be best, or best adapted to our use, we choose for that reason. Where the grounds of judgment are clear and obvious, correct choices are easily obtained. Thus we find no difficulty in choosing between a manifestly good article, and one of the same kind, and of the same price, that is manifestly poor and defective. But where the grounds of correct judgment are not obvious, we are proportionably liable to error in our judgments, and in the choices to which they lead.

When we judge correctly, our choices will be correct, and when we judge erroneously, our choices will be erroneous, and proportionably disadvantageous. We cannot judge essentially wrong, and choose right; or judge right in all respects, and choose wrong.

In order that judgments may be correct, they must correspond to the facts and evidence pertaining to the cases to which they relate. They must arise, therefore, from a perception and due consideration of facts and evidence. All the important facts, and all the important evidence, must be known and considered. When we have reason to believe our knowledge is incomplete, we ought to suspend our judgments, and protract our preliminary inquiries, till it is completed.

This suspension of judgment depends on a purpose or

determination to be fully informed previous to judging, and on the careful exercise of this faculty, both on the facts and evidence ascertained, and on the points of inquiry suggested for farther consideration.

Immoderate appetites and affections lead to erroneous choices. An immoderate appetite for strong drink, leads the drunkard to prefer it to wholesome food, and to any other object which can be brought in competition with it. An immoderate love of company leads many to prefer it, in particular cases, before other sources of enjoyment of far greater value. So of an immoderate love of money, of praise, of honor, of fame, of power, &c.

The extensive dominion of immoderate appetites and affections, in producing erroneous choices, is owing, in a degree, to the fact that they are liable to operate with their full power, when the objects to which they are opposed are not taken into consideration. With sufficient knowledge to choose against an immoderate appetite, we may choose in agreement with it, through a moment's in-consideration.

We are liable to choose wrong, under the influence of wrong examples, and of persuasion. We are creatures of imitation. What others do we are inclined to do because they do it; what others choose, especially those whom we esteem and love, we are inclined to choose because they have chosen it. The first wrong choice of our first parents, was exercised under the influence of persuasion, perverting the dictates of reason, and leading to the erroneous judgment, that benefit could be obtained from eating the fruit which God had expressly prohibited.

When example and persuasion are right, they tend powerfully to lead us to choose right. But when, as often happens, they are wrong, they tend as powerfully to lead us to choose and do wrong.

We cannot choose contrary to all our feelings and susceptibilities. We may choose contrary to some feelings, and in agreement with others. Thus we may choose that which will subject us to pain, in the hope of improving our condition in respect to property, health, honor, or favor with God. And we may choose that which is prejudicial

to health, property, honor, fame, and favor with God, for the sake of avoiding pain. But we cannot choose an object which is contrary to all our feelings and susceptibilities, and which we view as being so at the time of making our choice.

In most of our choices we consult for the gratification of some of our susceptibilities, at the expense of occasioning pain to others, or of withholding gratification from them.

The principle on which we act, in such cases, is to choose whatever is, on the whole, beneficial in the highest degree. These choices require a comparison of the evils to be anticipated from particular objects, with the benefits to be expected from them, and an estimation in favor of those benefits, as on the whole the greatest we can secure. In these comparisons, and the estimates to which they lead, we are extremely liable to error, both from ignorance and inconsideration. Especially are we liable to over-rate the present, and the immediate future, as they are related to the objects of our choice, and to undervalue the more remote future. Errors of this kind are frequent and often fatal.

The choices of animals and infants have no moral character. Those of moral agents are right or wrong, according as they are conformable to the law of God, or in contrariety with it, or according as they relate to objects considered as harmonizing the interests of the subject with those of other beings, or to those of an opposite character.

The pleasures and pains of voluntary beings depend, to a great extent, upon their choices. Animal choices are essential conditions of animal comfort. Voluntary beings are placed between pleasure and pain, happiness and misery; and are compelled to choose happiness, in order to attain it; and to choose not to have pain, in order to avoid it. Not only are they compelled to choose in regard to happiness and misery; they are compelled to choose equally in regard to the concurring causes of both. They must choose in favor of the concurring causes of happiness, both immediate and more or less remote, if they would secure happiness; and against the similar concurring causes of misery, if they would avoid misery.

This necessity is laid, in some degree, upon animals, but it is laid in a far greater degree upon men.

Men are required to choose between infinite happiness and infinite misery ; and between the more and less remote concurring causes of both. Their liabilities and capacities are incomparably greater than those of animals, considered merely with respect to this life, and at the same time are heightened and increased by an endless line of miseries or delights, to be administered in the life to come. Man runs for an infinite and eternal prize. He is placed on the race ground ; the prize is held up distinctly before him, and the hazards clearly explained. He is not at liberty to decline the race ; and if he does not gain the infinite prize, he must lose every thing good, and incur infinite evil.

SECTION III.

THE NATURE AND LAWS OF PURPOSES.

Purposes are similar to choices, and may be considered as a distinct species of them. They consist of those choices which relate to our future possible actions, and are distinguished from others which relate to our future possible happiness and misery, and their concurring causes, whether more or less remote. We choose happiness in preference to misery ; higher degrees of happiness of the same kinds, in preference to lower degrees of it, and some kinds of happiness in preference to others.

In the same manner we purpose future possible actions, considered as concurring causes of happiness, more or less immediate or remote ; and purpose those which are viewed as concurring causes of greater degrees of happiness of the same kinds, in preference to others ; and those which are concurring causes of some kinds of happiness, in preference to those which are concurring causes of other kinds of happiness.

Purposes are synonymous with resolutions and determinations. To purpose, is the same as to resolve or de

termine to perform some future action, supposed to be possible.

Purposes are either general or particular.

General purposes relate to courses of action embracing a greater or smaller number of particular acts; particular purposes relate to particular acts. The purpose to do right, is general; that to do right in a particular instance, particular.

The exercise of the mind in forming purposes, either of a general or specific nature, is similar to its exercise in choosing. The same things which induce us to choose an object of choice, induce us in pursuance of that choice, to purpose the acts which are requisite for its attainment. All the laws of choice, therefore, apply equally to the formation of purposes.

Our purposes are limited to our supposed powers of voluntary action, as our choices are to our supposed capacities of enjoyment. We cannot purpose to do what we do not suppose at the time we shall have power to do. In order to purpose any act or course of action, we must suppose it practicable. Otherwise we may regard it desirable, and may even wish we were able to effect it, but cannot resolve to do so. Men, therefore, cannot purpose what they clearly perceive or fully believe to be impossible.

Of things which we are able to do, we cannot purpose such as appear not adapted to be of any use to us or others. Future action must be viewed as adapted to subserve, in some degree, our happiness or that of other beings, in order that we may purpose it.

There must, also, appear some reason for forming a purpose to do a future possible and desirable act, more than the idea that the act contemplated is possible and desirable. These ideas are necessary prerequisites, but they are not sufficient alone to produce purposes. We must perceive that there is some necessity for the purpose in question; that there is something to be gained by forming it, and something to be lost by not forming it. The same is true of choices and volitions.

We often suspend a choice for days and months after the objects of choice are presented before us, because there does not appear sufficient reason why we should make an immediate choice. In order, therefore, to form purposes, we must view these acts, not only as possible, but as of immediate utility, and perceive an existing demand for them. The use of choices and resolutions is to serve as rules of subsequent voluntary action. When we see the need of them for that purpose, if no obstacle intervenes, we form them. The relation of that necessity to real or supposed obstacles, as estimated by the mind, determines the formation or suspension of purposes. We form purposes, when the apparent reasons for forming them are greater than the apparent reasons for delaying the formation of them to a future time. Common reasons for delay, are desires of farther information. Common reasons for forming them immediately, are drawn from the necessity of adapting our conduct to such resolutions, or else of acting in a manner which will prove unfavorable to our interests, provided we should wish to form them at a future time.

A young man deliberates on the subject of learning a particular trade. A favorable opportunity offers: he has not yet formed his purpose, but is waiting and searching for reasons for and against it. He must decide within a limited time, or lose the present favorable opportunity of carrying the proposed resolution into effect. To secure this chance, he decides in favor of the trade, when, otherwise, he would have left the matter undecided for months. Similar considerations produce determinations in other cases. Cases often occur in which we may resolve either to do, or not to do, a particular action; or to pursue, or not pursue, a particular course of action with advantage. It is often better to decide either way, than not to decide one way.

All our purposes have reference to our future actions, as the best means of securing the best ends, which are comprehended within the sphere of our knowledge and consideration, at the time of forming them. They involve,

therefore, in these points of view, the highest exercises of our reasoning powers, and must, necessarily, be determined by them. Correct reasonings lead to correct purposes; and reasonings essentially incorrect, lead necessarily to incorrect and injurious ones. All the circumstances which contribute to promote or retard the formation of purposes, are embraced within the wide domains of reason; and according as our reasonings are correct or incorrect, our purposes are useful or injurious, wise and good, or unwise and evil.

Our capacity of forming purposes, is co-extensive with that of possible future action. Whatever we have power to do, however arduous and difficult the doing of it may be, we can resolve to do, under appropriate influences, and in appropriate circumstances. The power to form rational purposes is, like the other mental faculties, limited; but it is limited only by the other faculties. The exercise of this power is all with which we have any particular concern. Within the limits to which it extends, the exercise of it may be effected, not arbitrarily, but in a rational way, or through the appropriate exercise of our rational powers. The formation of right and useful purposes, is as appropriate an object of pursuit and effort, as any other which can engage our attention.

Our influence over our future conduct, is exerted chiefly by means of purposes. They bear a similar, though less intimate relation to future action, which volitions do to present action; and the object of purposes is as really to produce future action, as that of volition to produce present action.

The capacity of forming purposes, in respect to future voluntary acts, is of great importance and utility. On the manner of our exercising it, much of our happiness or unhappiness, virtue or vice, depend. The proper exercise of it tends greatly to increase our happiness, and the negligent, or otherwise improper exercise of it, tends equally to render us miserable.

Choices and purposes are more or less continuous, but like other mental exercises, are subject to necessary remissions. They require cotemporaneous ideas of objects, to

which they relate equally with emotions, affections, and desires; and are capable of being modified, suspended, or reversed by similar means.

Purposes vary in respect to their qualities as moral or not moral; and moral purposes as either right or wrong. In respect to intensity, they are subject to variations similar to those of the emotions, affections, and desires, and are distinguished as firm or feeble, strong or weak. A firm purpose is not easily overcome; a weak purpose easily gives way.

They are also distinguished as occasional and habitual, transient and enduring. Occasional purposes may relate to occasional duties, or to habitual ones. In the former case they are right and proper; in the latter, defective. Habitual duties require habitual purposes.

God's purposes are in constant exercise, and are unchangeable; being founded in unchangeable and infinite wisdom and goodness. The purposes of all finite beings, however, are subject to numerous and protracted remissions, and are liable to be changed by means of changes in the ideas and other mental exercises on which they depend.

SECTION IV.

THE NATURE AND LAWS OF VOLITIONS.

Those purposes which relate to immediate action, are distinguished from others under the title of volitions. They relate to actions as future, equally with other purposes, but relate to them as immediate; whereas, other purposes relate to them as more or less remote.

Volition means, simply, an act of will. To exercise a volition, is to will some immediate action. We will a motion of the hand, and it moves; we will to suspend its motion, and it is suspended. So of all voluntary corporeal actions. We will their being done, and they are done; and we will their not being done, and they are not done. Actions which do not depend upon our volitions,

are not voluntary; and those which depend upon them only in some degree, are only in some degree voluntary.

The sphere of volitions in respect to corporeal actions, is easily distinguished. All voluntary corporeal actions are contained within it, but cannot possibly fill it. Those corporeal actions which we perform in consequence of volitions, we easily distinguish from others in which we exercise an involuntary agency. In walking, standing, sitting, moving, &c., we are voluntary; in breathing, and still more in the processes of absorption, secretion, perspiration, and various spasmodic affections of the limbs and other organs, we are involuntary.

Many important actions are involuntary, however, only in relation to the immediate acts of the will, directed to their production or suspension. We cannot produce or suspend them by volitions in favor of their occurrence or against it. Regular and irregular motions of the hands or other limbs, may be produced by volitions as their immediate concurring causes; but this is not the case with the pulsations of the heart and arteries, or the other muscular motions involved in the various processes of organic life. The same power that moves the limbs by volitions, causes the appropriate motions of the heart and arteries, and of the other related organs, without the intervention of these exercises, and according to other laws, which have, equally with those of volitions, been established by the Creator.

Actions which are independent of volitions as immediate concurring causes, are not entirely independent of the will, or of volitions as their remote concurring causes. Those which we cannot control by the direct influence of volitions, we may often control by intervening objects of volition. This is the case with many of the processes of organic life. We may derange those which are regular, and regulate those which are deranged, by various actions directly under the control of volitions. It is perfectly in our power to suspend all the functions of organic life, and to produce any conceivable degree of derangement in them, by means of voluntary corporeal actions. When some of them are deranged, we can often restore them to order by

similar means. The whole science of medicine relates to the voluntary control of the processes of organic life. It teaches us to modify these processes in various ways, and to a surprising extent, by the use of medicines ; and thus greatly extends the dominion of the human will over those operations of the mind, which are concerned in the phenomena of organic life, and which are not immediate objects of volition.

Voluntary corporeal action takes place by means of the contraction and relaxation of certain muscles, adapted for the purpose.

The ultimate cause of the voluntary contraction of muscles is the mind. The action of the mind in producing voluntary muscular action, terminates on the nerves, and is communicated by them to the muscles. The agents of voluntary muscular action are : (1.) The mind acting on the nerves ; (2.) The nerves affecting the muscles ; (3.) The muscles contracting and moving the limbs, &c.

The muscles of the dead may be contracted by galvanism, communicated to them by the nerves of motion, so as to produce actions analogous to the voluntary actions of living beings. This has often been done, to the surprise and astonishment of beholders. In life, the mind acts on the nerves of motion, and these organs on the muscles. There is no evidence that it acts at all directly on the muscles in voluntary corporeal actions, any more than there is that it acts directly on external objects, which it moves through the medium of the limbs.

The contraction of the muscles by the galvanic fluid, after death, proves that they are adapted to operate in performing their legitimate functions as an effect of galvanic or other similar excitement. Their living action, therefore, may be by means of this excitement. According to this hypothesis, the nerves act upon the voluntary muscles in living beings, by means of a galvanic or other fluid, and serve as conductors of this fluid to the muscles. The energy with which the muscles contract, other things being equal, is proportionable to the amount of galvanism which they receive. All that the nerves receive they give.

The facts which are clearly involved in voluntary muscular action are ;

- (1.) Conscious and voluntary mental exercises ;
- (2.) The accumulation of the nervous fluid in those parts of the nervous system where the action is to be performed, and on the particular nerves with which the muscles to be operated upon are connected ;
- (3.) The discharge of this fluid from the nerves to the muscles with which they communicate ;
- (4.) The consequent contraction of the muscles and motion of the limbs or other organ.

In this case, the agency of the mind is concerned directly ; (1.) In accumulating the galvanic fluid where it is to be used ; (2.) In discharging it from the nerves of motion connected with the particular muscles to be moved, and in such proportions as are requisite for the ends contemplated.

The theory of a nervous fluid does not weaken the evidence of the existence of human and animal minds, derived from voluntary action, and other conscious exercises. Material muscles may be excited by a material fluid ; the nervous system may serve as organs for the secretion and distribution of this fluid ; but beyond the nerves and nervous system, and the fluid which they secrete and distribute, there must be another agent to govern their secretion and distribution of this material element. That ultimate agent is the mind, and is the exclusive subject of volitions.

Voluntary corporeal actions originate in volitions. Their subjective causes are entirely material ; their ultimate objective causes spiritual. The mind is the ultimate objective cause of all the corporeal actions which it concurs in producing by volitions.

Mental exercises are not, in any case, appropriate objects of volition, in the sense that corporeal voluntary actions are. The mind does not produce sensations, ideas, emotions, or choices, by the direct agency of volitions. It produces these exercises as it produces volitions, and is their common subjective cause. Some of its exercises

are agreeable to its choice respecting them, and some are not. No possible conscious exercise can be an object of choice, except as far as it is at the same time an object of ideas.

Mental exercises occur, and are then objects of choice as to their continuance or non-continuance. We have ideas of mental exercises, which do not exist at the time, as the objects of certain relations, and prosecute the more perfect attainment of them as rational objects of pursuit; but not as direct objects of volitions.

Judgments, imaginations, reminiscences, emotions, affections, and desires, are in some degree under our voluntary control. We can obtain many of them or not obtain them, as we choose; but we cannot obtain any of them as the direct objects of volitions. Men move their limbs by means of volitions; but they do not judge, know, imagine, or remember by these means; neither do they experience emotions, affections, and desires, or form choices and purposes by them.

Volitions are not necessary to sensations, where the appropriate organic impressions exist; they are not necessary to the formation of judgments on the ground of sensations; or to the exercise of emotions as the consequence of emotion-producing ideas.

Volitions which have respect to mental exercises, are denominated acts of attention. In attention, the mind is exercised voluntarily in existing ideas and their accompanying emotions. We attend to existing ideas in order to obtain others; and to some existing ideas in preference to others, according as we suppose they are preferable, either as means of attaining desirable emotions or other desirable ideas.

A large portion of our mental exercises depend on volitions directed immediately to the production of corporeal actions; such as the exercise of the mind in seeing, hearing, tasting, &c. We perform certain corporeal acts as objects of volitions, with a view to obtain mental exercises, and by that means attain them.

Volitions, like choices and purposes, are subsequent in the order of succession to desires. We first desire, then

will, in conformity with our desires. The immediate concurring causes of desires, are remote concurring causes of volitions and voluntary actions. Considered with relation to the voluntary actions which they concur in producing, desires are denominated motives, and are distinguished from the objects to which they relate, under the title of subjective motives, while their objects are denominated objective motives. Thus, wealth is an objective motive, and the desire of it a subjective motive to industry; the favor of God an objective motive, and the desire of it a subjective motive to piety, &c.

Objective motives are essential conditions of subjective ones; and subjective motives, of choices, purposes, and volitions, and voluntary actions.

Volitions vary in respect to intensity, like sensations and emotions. Some volitions have more intensity and others less. Other things being equal, their consequent actions or effects are proportionable to their intensity. With volitions of one degree of intensity, we lift one pound; with those of two degrees of intensity, two pounds; with those of a hundred degrees of intensity, a hundred pounds; and so on to the most intense possible.

Voluntary actions are more or less difficult and laborious, and uniformly become less and less so by repetition. Processes which are difficult and laborious at first, become easier and easier by practice, till we perform them almost without effort. The muscular strength which we exert on different occasions, other things being equal, is proportionable to the energy of our volitions.

SECTION V.

THE GENERAL LAWS OF THE WILL.

Our choices, purposes, and volitions, exert a powerful and extensive influence in determining our happiness and misery. Every other class of mental exercises is, to a great extent, determined by these. Their influence is of two kinds, direct and indirect. They exercise a direct in-

fluence on our sensations and ideas in attention; and on our bodies in voluntary muscular action. They exercise an indirect influence on our sensations, ideas, emotions, affections, desires, and future acts of will, by the effects of attention and of voluntary corporeal action.

In these two modes our past acts of will determine, to a great extent, our present experience; and our present acts of will, together with those which are past, our future experience. The experience of each successive portion of life is thus linked to the exercises of the will.

Our first acts of will modify our earliest experience, and extend their indirect influences to the remotest future. All our successive acts of will are added to the common stock of our previous exercises, and exert similar immediate and remote influences, which extend forward indefinitely.

The exercises of will in infancy affect the experience of youth, manhood, and old age. Those of youth affect the experience of manhood and old age; those of manhood affect the experience of old age; and those which belong to all the different periods of life, affect the experience of a future state forever.

These influences ought to be constantly borne in mind, and carefully studied, that we may know beforehand what effect particular choices, purposes, and volitions will have on our whole destiny. We always act in view of some of their anticipated effects. We ought, as far as possible, to obtain a view of all of them, and to make such a view the basis of our judgments pertaining to this class of our mental exercises.

The capacity of acting in view of motives, and for the accomplishment of those ends which we judge desirable, enhances the value of all our other capacities, and renders them available for the attainment of happiness. Without this endowment we might be sentient machines, operating according to the will and judgment of our Creator; but with this we are moral agents, acting according to our own will and judgment, and are the subjects of moral responsibility for our actions.

The will is adapted to the other mental faculties. It is the servant of the susceptibilities of pleasure and pain, and of the consequent affections and desires; but operates according to the inferences or deductions of reason, deciding different modes of action to be both possible and desirable, at the time of their being resolved on or performed.

According as our judgments are right or wrong, dependent acts of will are really useful or injurious.

Reason is the guide of the will, and is exercised under its influence and direction. Here is the mystery of human nature; and on this point multitudes are involved in endless perplexity. This mystery, however, admits of an easy solution, and may be solved as follows:

The first exercise of will occurs under the direction of reason, uninfluenced by any previous purpose or volition. It is purely a dictate of reason, or a dictate of unbiassed reason. Its results become matters of experience, and produce corresponding judgments. Judgments resulting from that exercise of will, together with others not derived from that source, produce other exercises of will; and every successive exercise of will modifies the judgments which follow; the judgments constantly producing acts of will, and the acts of will producing and modifying future judgments.

The changes which occur in our susceptibilities of pleasure and pain, in the course of our experience, modify both our judgments and acts of will. In judging what is good or evil, we always consider the objects to be judged of, with respect to our existing or future possible capacities and conditions; not in respect to those which we may have previously had and lost, or to those which we may yet have in future, but which we do not anticipate.

Our capacity of willing, is limited by our susceptibilities of pleasure and pain, and our other mental and bodily faculties. It is greater or less, in proportion as these capacities are increased or diminished. Will is not omnipotent nor independent. Its powers correspond to the other faculties of voluntary agents, and its exercises depend entirely on previous or cotemporaneous mental exercises.

So far from being an independent and despotic ruler, wielding the mighty energies of sensation, emotion, reason, imagination, and the affections, in an arbitrary manner, it is their constant and obedient servant, doing their whole bidding, to the extent of its powers, and never attempting more. Such it must ever continue. In every possible condition of human nature, the will must be in accordance with the other mental exercises; the mind judging at each successive moment what is to be chosen, purposed, and done, and indicating both the ends to be sought, and the means for their attainment; and choosing, purposing, and doing accordingly.

Our capacity of doing good to ourselves and others by voluntary action, of creating happiness and averting misery, involving the formation of judgments, in respect to the modes in which we can accomplish these ends, is a high and valuable endowment. It adapts us to the circumstances of our being, as subjects of God's moral government. We are impelled to action by the prospect of suffering, and invited to it by that of pleasure.

All voluntary action is in pursuit of pleasure, and in escape from pain. This is the case now, and must ever be, in every possible condition of voluntary agents.

If we should ever be placed in such a condition, that action would afford us no pleasure of any kind, and inaction expose us to no pain, voluntary action would be impossible. The suspension of our pleasures and pains, upon our voluntary action, is necessary to the production of such action. It must prevail, therefore, in respect to all voluntary agents, not excepting God himself. God's happiness is the consequence of his right voluntary action. In proportion as we are assimilated in character and conduct to him, we enjoy a similar felicity.

There can be no voluntary action, without some degree of the exercise of reason, indicating the mode of action to be performed, and the ends to be gained by it; or, in other words, the consequences to flow from it.

The idea of ends to be gained, suggests that of means for their attainment; and that of means, suggests ends. The idea of an action to be performed, and of some of

the consequences to flow from performing it, tends to suggest all that we ought to consider, in order to act wisely in every possible case.

God's moral government is administered by the dispensation of good and evil, as the consequence of right and wrong actions, so as to harmonize the interests of all holy beings. It consists of rewards and punishments, happiness and misery, resulting from particular moral actions, and courses of action, both in time and eternity.

The less perfect government of families and states, is administered on the same principle. It encourages certain actions, and courses of action, by the bestowment of rewards, and discourages others by the infliction of punishments. It thus appeals to the will of the subject, through the medium of the susceptibilities which men possess, of happiness and misery, and through the exercise of reason, estimating the consequences of different actions, in different relations and conditions.

Considered in relation to the Divine government, all the happiness which results from well-doing, is of the nature of rewards; and all the misery that results from sin, is retributive or primitive.

Divine revelation greatly increases our knowledge of moral actions, both by its precepts and by its disclosures respecting their future and eternal consequences. It affords us essential benefit, by furnishing us definite and explicit rules of moral action; and by exhibiting the most important and weighty reasons for doing right, and only right, in all cases whatever.

Our general judgment may be in opposition to a particular act, and we may regard it as on the whole undesirable and injurious; and yet, under the influence of temporary excitement, we may judge it desirable, and perform it. In this case, the excitement of the occasion perverts our judgment, and the perverted judgment misleads the will.

Doing what we know to be wrong and injurious, under the influence of inordinate affections, admits of a similar explanation. Contemplated in some points of view, we judge such acts to be entirely undesirable and injurious; in other points of view, they are the subjects of vehement

desire, and of favorable judgments. While we contemplate them in relation to the law of God, and to their future evil effects, we do not and cannot judge it best to pursue them. But when, even for a short time, we contemplate them simply with reference to our own inordinate passions, our desire for them becomes strong, and often decisive of our wills, to the prejudice of our highest known interests. It is thus that we "see the right, and yet the wrong pursue."

While the right is distinctly and prominently in our view, it determines our judgments, desires, and acts of will. But during the intervals, however short, in which it is left out of view, or made less prominent than it should be, perverted judgments are formed, inordinate desires spring up, and injurious acts of will are put forth.

By the exercise of judgments we form comparative estimates of different objects of pursuit and choice; of the different modes of action by which to secure the objects we choose; and of the times to act. According as we judge, we act. Our judgments, however, may be perfectly right, or imperfect, in different degrees; and our conduct will be proportionably wise, or unwise and injurious, and right or wrong.

Animals are, equally with men, subjects of choices, purposes, and volitions. They choose some objects in preference to others; purpose some future actions in preference to others; and will some immediate actions, or put forth some volitions in preference to others. The laws of the animal, are similar to those of the human will. They are incapable, however, of forming ideas of actions as right or wrong, and of experiencing the emotions, affections, and desires, which these ideas are adapted to excite. Their knowledge, and the sphere of their emotions, are more limited than those of men; consequently they are incapable of many choices, purposes, and volitions, of which men, by reason of their higher endowments, are fully capable.

SECTION VI.

LIBERTY AND NECESSITY.

Actions which depend either immediately or remotely on the will of their subjects, are distinguished from others under the title of free actions. Others are denominated necessary. All the actions of material agents and of vegetable minds are necessary. Those of men and animals are either free or necessary, according as they depend on the choices of their subjects or not.

The capacity of performing free actions, constitutes beings free agents; those of performing only necessary actions, necessary agents. Material objects are necessary agents, and men and animals free agents, considered with respect to all their free actions; and necessary agents, considered with respect to those which are not free.

Freedom has respect to possible actions. Those which are possible at some times, may be impossible at others. In its greatest extension, human freedom relates to all those actions which are ever possible, and necessity is restricted to those which are never under our voluntary control. Actions which are never possible, we are not free to perform, and those which it is never in our power not to perform, we are not free to decline.

In the sense above described, freedom and necessity are applicable to choices, purposes, and volitions, equally with other human and animal actions.

Many choices are determined indirectly by previous choices, in the same manner as sensations, ideas, and emotions are. Many conceivable choices are never possible to individuals, and their non-attainment is therefore necessary.

Freedom is either limited or unlimited. It is limited when actions, which were free for a time, after that time become necessary; and is unlimited, when free actions never become necessary. We are the subjects of unlimited freedom in respect to all actions which depend upon volitions or immediate choices; and of limited freedom

in respect to all actions which are not immediately voluntary; but which depend on previous remote choices.

Necessity is either relative or absolute. Actions are absolutely necessary which their agents never had power not to perform, and the non-performance of actions is necessary, in respect to all agents who are never able to perform them. The actions of matter and vegetable minds, and their non-performance of other actions, are absolutely necessary.

Human and animal actions are the subjects of relative or limited necessity, when it is impossible for the agent to perform or not to perform them after particular times, though either was possible before. No moral actions can be absolutely necessary; and no absolutely necessary actions can be the objects of moral obligation.

All choices are free. The idea of a necessary choice is absurd and contradictory. There is no choice where there is no liberty. Voluntary actions are free, considered as proceeding from choice, and depending on it as an essential concurring cause. Choices are essentially free. Freedom, however, is the opposite of necessity, not of dependence.

Human and animal choices are dependent equally with other phenomena. They depend (1.) on subjective causes or agents; (2.) on objective causes; (3.) on previous choices and other previous exercises; (4.) on God as their ultimate external cause.

PART FOURTH.

THE ORIGIN AND DERIVATION OF MINDS.

CHAPTER I.

THE ORIGIN AND DERIVATION OF MINDS.

THE ultimate origin of all finite minds is by immediate creation. Minds are, equally with matter, the objects of Divine workmanship. God made them in the exercise of the same power which is displayed in the creation of matter, but which is the subject of no other equal display.

The principal question respecting the creation of minds, which comes within the province of reason, is that which relates to the time of their ultimate creation. Are they derived from pre-existing minds, without an original act of creation? Or are they created singly and successively, as fast as bodies are provided for their reception? One of these suppositions is doubtless true. Minds are either created as fast as bodies are provided for their reception, or else they are derived from pre-existing similar minds, without original acts of creation.

It is a common opinion, that minds are brought into existence by creation, at the time when they become principles of life to appropriate bodies. This opinion is held, especially with respect to human minds. Few take the trouble to inquire whether animal minds are derived or created. There is probably, however, a general agreement in the idea, that animals and vegetables do not require any actual creations to effect their development; and that their principles of life are derived; not immediately created.

If, however, the principles of vegetable and animal life are pre-existent to their establishment in organized vege-

table and animal bodies, as principles of life to those bodies, the same may be true of the principles of human life. The principles of animal life are animal minds, and those of vegetable life, vegetable minds. All agree in being substances which are not material; that is, not the subjects of mutual attractions and repulsions. This is unquestionably true of the principle of animal life. Animal minds are as evidently not material as human minds. The same rule, therefore, which applies to the origin of human minds, ought to apply to that of the minds of animals; and the same which applies to the origin of animal minds, ought to apply to that of human minds.

If minds of any order are created successively as bodies are prepared for them, we may infer that those of all orders are; and if those of any order are formed by derivation from pre-existing similar minds, we may infer that all are the subjects of such derivation.

The origin or production of a mind involves that of a subject capable of certain operations. The powers of minds, however, like those of matter, are all relative. Were a single particle of matter to exist alone in the universe, it would neither attract nor repel; neither would it be the subject of any possible phenomena. The same is true of a single created mind. Were such a mind, whether human, animal, or vegetable, to exist alone in the universe, with only its present capacities, it would be as incapable of any of its present exercises, as a solitary particle of matter would be of attraction and repulsion. Human minds, with the properties which they exhibit in this world, are as dependent on organized bodies for their development, as one particle of matter is on others for the exercise of its powers of attraction and repulsion. The same is true of animal and vegetable minds.

Minds are individual subjects, capable of certain operations and exercises in certain conditions. Human minds are capable of a certain number and variety of operations; animal minds of others in some respects similar; and vegetable minds of others still.

Single minds are capable of animating bodies of indefinite extent. The human body is at first small, but grows

to be many times larger. The same vital principle which animates it when small, continues to animate it when increased to its largest size. The mind which gave vitality to the miniature man in the earliest stages of his existence, continues to animate him in his mature years and full size.

The organs of the human body are, to a great extent, double. Each side has its own separate brains, its own separate spinal cord, its own separate nerves, muscles, and its own eye, ear, nostril, hand, and foot. The organs of each side of the body have their own capacities, independent of those of the other, and are capable of simultaneous exercises. All, however, are subject to one conscious reasoning, feeling, and choosing mind. One and the same subject of sensations, ideas, emotions, and choices, gives vitality to the whole, and directs the whole. The presence of this agent is evinced in every part of the body, from its central organs to its remotest extremities. It is comprehended within certain definite limits, capable of indefinite contraction and extension. If the body is contracted within smaller dimensions, by the amputation of limbs or other means, the sphere of its mental operations, and of the presence and agency of its vital principle, is proportionably contracted; and if the body is increased in magnitude to double, treble, or hundreds of times its primitive size, the sphere of the agency of its actuating mind is proportionably increased. This is true of all orders of terrestrial minds, human, animal, and vegetable.

The human body usually grows to many times its original size; the same is true of the bodies of animals and insects, and of vegetables. Many vegetables grow to be thousands of times as large as their primitive size, and their extended bodies are as completely pervaded by the principle of life, as the diminutive ones with which they commenced their existence.

Such is the physical nature of the human mind, that had Adam lived till now, and grown to a size equal to that of all his posterity, by the same gradual process by which his descendants have been multiplied, for aught that appears, the mind with which he was originally endowed, would have been as fully adequate to the purposes of that

extended organization, as it was to that of the smaller size in which he was created, and which he was not permitted to exceed. The same may be said of the first of each class of animals and vegetables. Had the first oak continued to exist and grow till now, so as to have been at this time equal in size to the sum of all the oaks which have sprung from it, the vegetable mind with which it was endowed would, for aught that appears, have been as adequate to the purposes of that extended organization, as it was to those of the more limited one actually attained.

There is no evidence that the size of organized beings bears any proportion to the capacities of their vital principles. They are limited to comparatively small sizes for wise reasons, many of which are obvious; but none of these reasons are derived from any incapacities of their organizing principles to serve as principles of organization to larger bodies. The vegetable mind which gives vitality to an acorn, does the same to an oak; and the human or animal minds which give vitality to their respective bodies in the earliest periods of their existence, do the same to much larger bodies at later periods.

The same mind exists in different places at the same times. This follows as a necessary conclusion from any hypothesis admitting the existence of minds. Take, for example, the human mind. Sensation is exercised simultaneously in different parts of the body. But sensations are phenomena of minds; therefore they indicate the simultaneous presence of the mind in different parts of the body at the same time. Even admitting the absurd supposition that the mind is restricted to the narrow limits of the brain, and that we are mistaken in conceiving of the subject of sensations as being in the tooth or limb, when we experience the tooth ache or other aches; still we have as much reason to conclude that it is simultaneously present in both lobes of the brain, as that it exists within the limits of either; and that it is simultaneously present in different parts of the same lobes, as that it exists within any part of them. Consequently, we have as much reason to conclude that minds are extended, as that they exist at all.

According to the most rational supposition, that the same minds exist simultaneously as the subjects of sensations, in all parts of their respective bodies where sensations occur, they possess degrees of extension equal to that of their bodies; and according to the supposition, that the immediate agency of human and animal minds is restricted to the comparatively narrow limits of human and animal brains, they extend simultaneously to the right and left lobes of the brain, corresponding to the right and left sides of the body, and to different parts of the same lobes at the same times. We come, therefore, to the legitimate and necessary conclusion, that human and animal minds are extended. Having ascertained this fact, we next infer that they are capable of different degrees of extension, according to those of their appropriate bodies. The same conclusions may be drawn from similar phenomena, exhibited by vegetable minds.

The same vegetable mind which is now limited to the narrow dimensions of an acorn, is capable of being expanded to those of the largest oak, and the same human mind which is now restricted to the narrow dimensions of an infant body, is capable of being expanded to those of the largest man.

The expansion of minds takes place in appropriate circumstances, and depends on appropriate conditions. The infant mind cannot exceed the limits assigned to it; that of the full grown man cannot exceed the limits assigned to it; and the minds of animals and vegetables cannot exceed the limits assigned to them in the different stages of their existence.

The expansion of minds in the same bodies, is a phenomenon of absolute certainty. Minds expand from small dimensions to large without any diminution, and with a large increase of their powers. This takes place among all the different orders of organized beings. Did their powers diminish as their magnitudes increase, we should have reason to conclude that their expansibility was limited. But the fact is the opposite, and authorizes an opposite conclusion.

We infer, therefore, from clear and decisive evidence,

1. That minds are actually extended;
2. That they are capable of indefinite extension, without any diminution of their local powers.

Thus far our conclusions rest on obvious and unquestionable grounds, and are entitled to be ranked as matters of knowledge, equally with ideas of the extension of matter. We have as logical grounds of certainty in respect to the extension of minds, as we have in respect to that of material bodies.

We now return to the question respecting the successive production of minds, human, animal, and vegetable. They are produced successively and continually, according to uniform physical laws, similar to those which regulate their gradual expansion after they are produced. Human and animal minds have power, within certain limits, to increase or diminish their dimensions. They also have similar power to produce successors. In taking that food and using the other means which result in growth, animals enlarge the dimensions of their existing minds. The same is true of the production of successors. In producing both these results, voluntary beings exercise an agency partly voluntary and partly involuntary.

Vegetable minds exercise an involuntary agency in their enlargement and growth, and in the production of successors, similar to the higher and more complex agency of men and animals.

Vegetables have a double method of production, by branches and by seeds. A branch from a tree may be inserted in a proper soil, and become itself a tree. Before its separation from the parent stock, the vegetable mind of the tree pervaded all its branches, and existed coterminously in all. When separated from the tree it retains a portion of the extended vegetable mind which it formerly received, and which becomes, in consequence of this process, an independent vegetable mind.

The remaining vegetable mind of the tree remains perfect, and is incapable of being exhausted by processes of this kind, because it is capable of indefinite expansion without any diminution of its local powers. That which

is capable of indefinite expansion, without any diminution of its local powers, cannot be impaired by a removal of its expanded parts.

The production of vegetable minds by seeds, is analogous to that by branches. A seed corresponds to a branch. Till it is ripened and perfected, it is a part of the tree or plant on which it grows. As soon as its organization is completed, it is separated from the parent stock by a natural process, analogous to the artificial one of cutting off a branch, and takes its due portion of the extended mind of the vegetable by which it is produced, along with it.

In the vegetable kingdom, therefore, the expansion of existing minds, and the production of new ones, are analogous processes. The latter involves no more an original act of creation than the former. Both are phenomena of vegetable minds; are referable to them as their exclusive subjective causes; to the conditions in which they occur, as concurring causes; to God, as their ultimate cause; and to the design and will of God, as their final cause.

The production of animal and human minds admits of an explanation similar to that of vegetable minds, and on equally valid grounds. From all which we infer, that the production of terrestrial minds is a phenomenon analogous to their increasing extension in the same bodies; and that minds exist in different parts of their bodies, however extended, as single minds; and are capable of being divided and multiplied, as well as extended, indefinitely, according to laws established by the Creator, and by association with different bodies.

The susceptibility of division, as possessed by minds, depends on the property of extension; and that of being divided into similar minds, possessing capacities of equal variety and extent, on the capacity of being extended indefinitely, without any diminution of their local powers. All the properties of beings are mysterious. This is particularly true of the properties of minds, the highest order of beings. The extension and divisibility of minds, however, and their capacity of being extended and divi-

ded indefinitely, are no more mysterious than their capacities of sensation, reason, feeling, or will.

According to the foregoing arguments and conclusions, the true theory of the origin of minds is the following. God created the first minds of each of the different orders of organized beings, by the same Almighty power, in the exercise of which he created the ultimate particles of matter. In connexion with other properties, he invested them with the properties of indefinite extension, in appropriate conditions, without any diminution of their local powers, and with the kindred properties of indefinite divisibility. Extension and divisibility are kindred properties, and the same is true of capacities of being indefinitely extended, without any diminution of local powers, and of being indefinitely divided.

The capacity of becoming extended in given circumstances, beyond the limits to which they are at first restricted, is common to all minds, human, animal, and vegetable. The same is true of their capacity of operating as concurring causes in the production of other similar minds.

In favor of the derivation of all minds directly from the creative power of God, there is no evidence direct or indirect. That derivation is possible; and if no other is indicated, may be admitted as probable; but it is not a subject of revelation, either natural or supernatural. In favor of their derivation, by division from pre-existing minds of the same orders, we have evidence of a clear and decisive character; some articles of which have been brought distinctly to view in the preceding pages.

The theory of the derivation of the minds of successors, from those of their predecessors, is strongly corroborated by the hereditary transmission of mental peculiarities. Vegetables, animals, and men, propagate their own species, never beings of another species. Particular varieties of the same species, propagate their own varieties, not other varieties belonging to the same species. The peculiarities of vegetables depend upon corresponding properties of their principles of organization. The same is true of those which relate to the forms, colors, struc-

tures, and other physical endowments of men and animals. These, therefore, indicate a resemblance between the minds derived, and those which precede them in the order of succession, sufficient to establish a presumption that the latter are derived from the former. This presumption is greatly strengthened in the case of men and animals, by the transmission of personal mental peculiarities, to an extent which is inconsistent with any other rational hypothesis. The explanation of hereditary dispositions and talents, by bodily conformation, is liable to insuperable objections. These qualities, dispositions, and susceptibilities, have their seats in the mind, as really as those by which men differ from animals, or one order of animals from others.

The theory now under consideration, explains many interesting phenomena, which are inexplicable on any other hypothesis, and sheds important light on one of the darkest subjects involved in the administration of the moral government of God; that of the fall and corruption of the human race, by the sin of our first parents. Through all the orders of creation, descendants inherit the essential features and characteristics of their progenitors, both in respect to capacities of organic and conscious action. The essential characteristics of progenitors, whether natural or acquired, are capable of transmission to successors. The same law applies to vegetables; and new varieties are constantly produced by this means.

The theory of the derivation of minds from similar pre-existing ones, in the different orders of dependent creatures, explains as many facts in the world of minds, human, animal, and vegetable, as the law of gravitation does in the world of matter. It is not the subject of supernatural revelation directly, but is in striking conformity with a scriptural representation of the descendants of Levi, as having existed in Abraham, their remote progenitor, long before they had any separate personal existence. Heb. vii. 9, 10. It may also be inferred from other scriptural evidence.

"Now to the King eternal, immortal, invisible, the only wise God, be honor and glory for ever. Amen."

Accept, O thou Holy One, this humble offering. Forgive whatever is erroneous. Attend with thy blessing whatever is true and conformable to thy holy will! Cause thy glorious works to be understood, and to become ladders of ascent to Thee. Especially may thy moral creatures learn the dignity and value of their mental endowments; and love and praise thee as the gracious and beneficent father of their spirits, and former of their bodies; as the fountain and source of their being and blessedness.

Thine image in man is glorious, though trodden down and defiled; all thy works of creation are glorious; more glorious still are the wonders of thy redeeming love! But what are thy noblest works to Thee? As ten thousand stars are lost in the effulgence of one larger, brighter sun, so do all creature-glories vanish in the light of thy rising. Arise and shine, O God! Thy works praise thee; thy saints bless thee; and louder, nobler, more joyful, and more frequent still, shall thy praise become, as thy creatures become wiser and better. *Amen.*

END.

ERRATA.

Page 16, 14th line from the top, for sensation, read *secretions*.

Page 62, 14th line from the bottom, for idea, read *consciousness*, and for it, *the consciousness of it*.

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